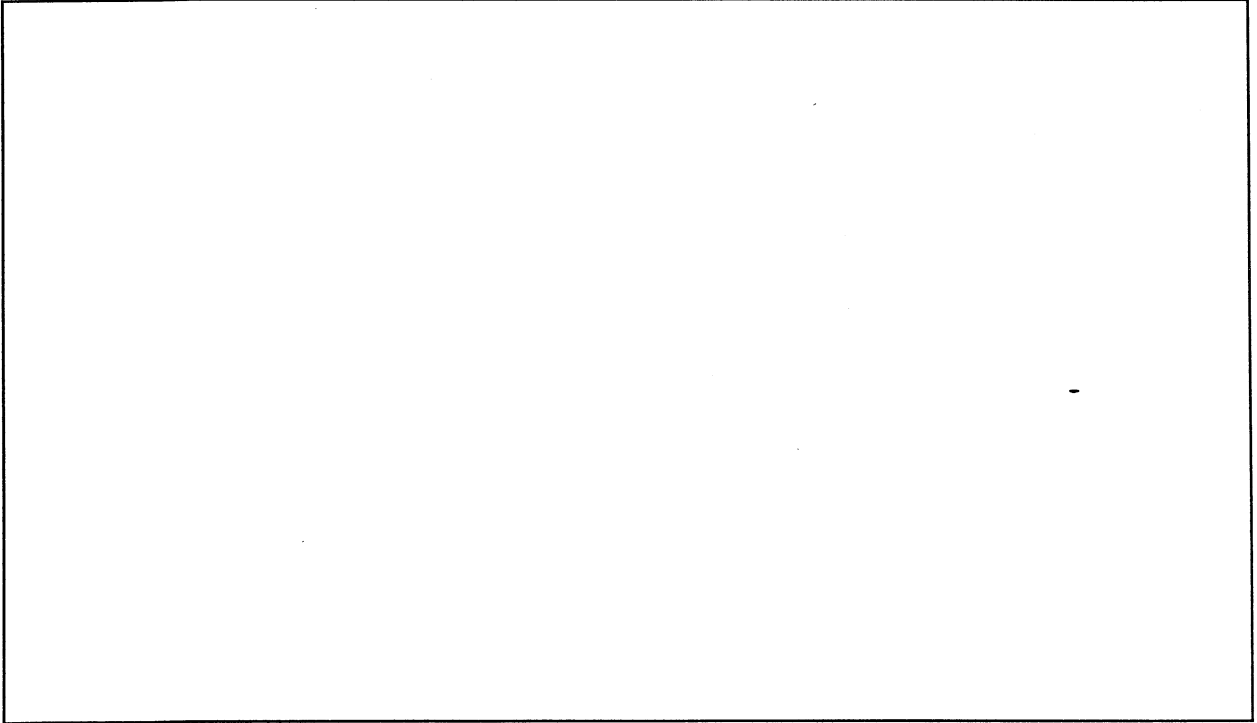


# **PHASE II ARCHAEOLOGICAL INVESTIGATIONS OF THE SARRO WETLAND REPLACEMENT SITE KENT COUNTY, DELAWARE**



By

**John C. Bedell, Henry Holt, and Ingrid Wuebber**

**THE CULTURAL RESOURCE GROUP  
LOUIS BERGER & ASSOCIATES, INC.  
East Orange, New Jersey**

Delaware Department of Transportation Series No. <sup>139</sup>~~XXX~~



**Delaware  
Department of Transportation**

**Eugene E. Abbot  
Director of Planning**

**1995**



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OF THE SARRO WETLAND REPLACEMENT SITE  
KENT COUNTY, DELAWARE

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THE CULTURAL RESOURCE GROUP  
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## ABSTRACT

Phase II significance evaluations of two archaeological sites within the Sarro Wetland Replacement Site, Kent County, Delaware, have been carried out by the Cultural Resource Group of Louis Berger & Associates, Inc. (LBA). The evaluations were undertaken by LBA for the Division of Highways of the Delaware Department of Transportation (DelDOT) under Parent Agreement No. 729. The sites, 7K-C-394 and 7K-C-396, were located in the eastern half of Area 4, a proposed wetland replacement area for the State Route 1 project, located northeast of Dover. The sites had been located during a Phase I cultural resource survey of the State Route 1 corridor conducted by the University of Delaware Center for Archaeological Research (UDCAR). The results of UDCAR's investigation revealed that these two sites were potentially eligible for the National Register of Historic Places. The investigations conducted by LBA and presented in this report were designed to evaluate Sites 7K-C-394 and 7K-C-396 for their National Register eligibility.

Site 7K-C-394, also known as the Alexander Laws Farm Site, consists of the archaeological remains of a farmstead established by the middle of the nineteenth century. The evaluation performed by LBA shows that Site 7K-C-394 is not eligible for listing on the National Register of Historic Places.

Site 7K-C-396 is one of several prehistoric sites located along the low-lying banks adjacent to Muddy Branch. Site 7K-C-396 is eligible for the National Register, under Criterion D, because it has the potential to contribute significantly to our understanding of the prehistory of the region. However, boundary testing demonstrated that Site 7K-C-396 is located entirely outside the area of effect of the proposed wetland mitigation. Therefore, no further work is recommended on either site.

## ACKNOWLEDGMENTS

The Cultural Resource Group of Louis Berger & Associates, Inc., wishes to express thanks to the many people who provided guidance, advice, and assistance at various stages of the project.

The Delaware State Historic Preservation Office provided an important oversight role and responded quickly to all requests for consultation and guidance. We wish especially to thank Gwen Davis Coffin and Alice Guerrant for their considerable help. Important assistance was also provided by Charles Fithian of the Delaware State Museum and the staffs of the Delaware Bureau of Archives and Records at the Hall of Records in Dover and the Library of Congress in Washington. Many people at the Delaware Department of Transportation provided important assistance, especially Kevin Cunningham.

The Cultural Resource Group of LBA had direct responsibility for the study. The staff is under the overall direction of John Hotopp, Group Vice President. Charles H. LeeDecker served as Project Manager during the development of the research design, the fieldwork, and the preparation of the management summary. John H. Sprinkle, Jr. succeeded Mr. LeeDecker as Project Manager and oversaw preparation of the final report. Randolph K. Taylor was the Principal Investigator during the fieldwork and preparation of the management summary. John Bedell prepared the final report. Ingrid Wuebber carried out the historical research. Henry Holt served as Field Supervisor. The field crew consisted of Kimber Budrow, Lorraine Durr, David Gilmour, Kevin Holliday, Julie Holt, Earl Proper, Paul Stansfield, and Anita Vyas. Artifact analysis was carried out in the LBA laboratory in East Orange, New Jersey, under the direction of Sharla Azizi and Nadia Maczaj. The laboratory work was performed by Rubi Arquiza, Jason Janowitz, Sau Wong, Robert Shaw, John Ra, Ayubu Azizi, Janet Bjugan, and Christina Szoke. Materials Specialists Mallory Gordon, Meta Janowitz, Marie-Lorraine Pipes, and Rhea Rogers had primary responsibility for artifact analysis, with help from Ronald Kearns, Nadia Maczaj, and Byron Simmons. Alex Ortiz was responsible for computer data entry and all computer-generated printouts.

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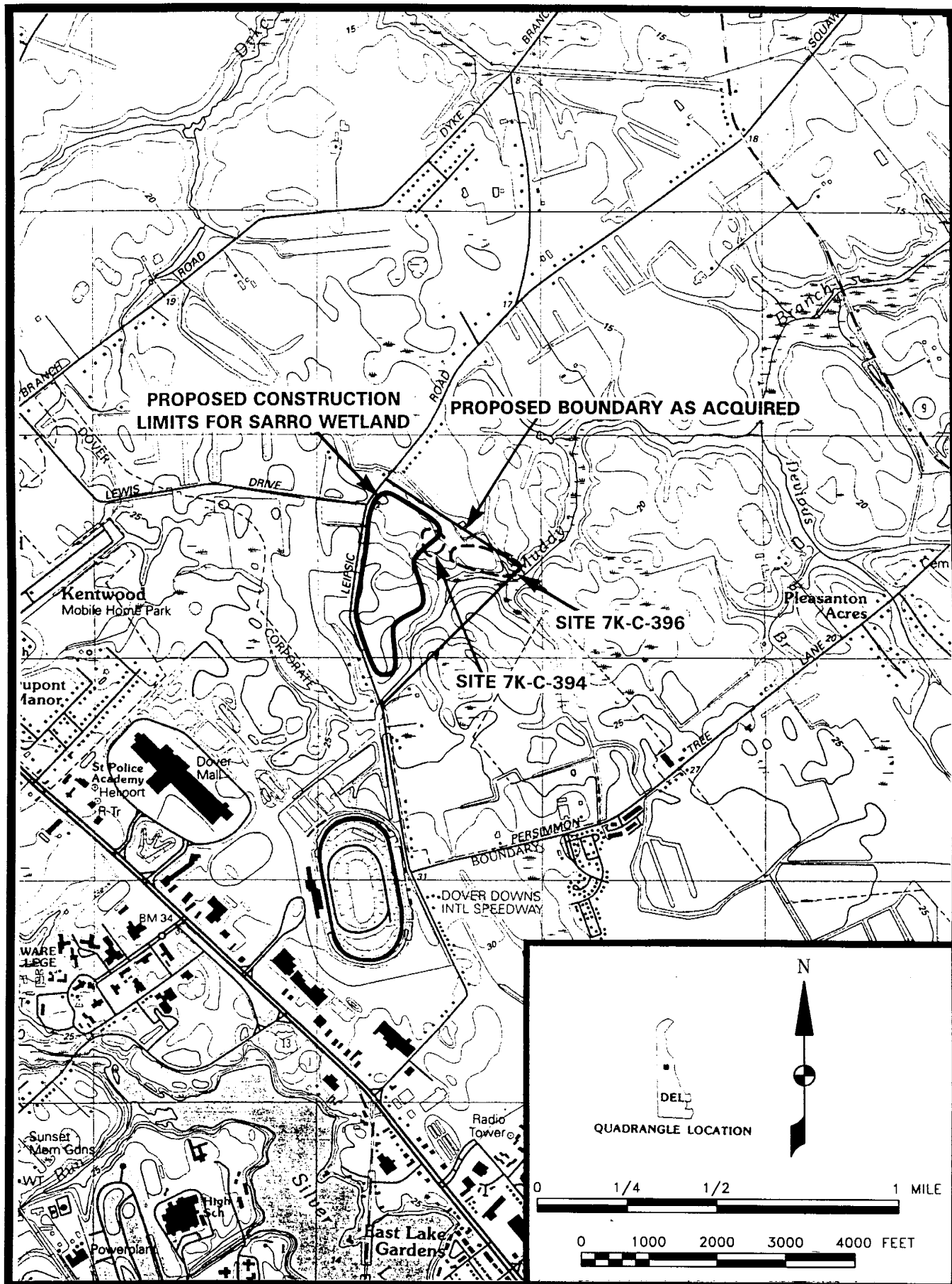
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## I. INTRODUCTION

Phase II significance evaluations of two archaeological sites within the Sarro Wetland Replacement Site, Kent County, Delaware, have been carried out by the Cultural Resource Group of Louis Berger & Associates, Inc. (LBA). The evaluations were conducted by LBA for the Division of Highways of the Delaware Department of Transportation (DelDOT) under Parent Agreement No. 729. The sites, 7K-C-394 and 7K-C-396, were located in the eastern half of Area 4, a proposed wetland replacement area for the State Route (SR) 1 project located northeast of Dover (Figures 1 and 2). The wetland replacement area, as acquired by DelDOT, measures approximately 80 acres, and the area to be impacted by the mitigation comprises approximately 47 acres. Sites 7K-C-394 and 7K-C-396 had been located during a Phase I cultural resource survey of the SR 1 corridor conducted by the University of Delaware Center for Archaeological Research (UDCAR). The results of UDCAR's investigation revealed that these two sites were potentially eligible for the National Register of Historic Places. The investigations conducted by LBA and presented in this report were designed to evaluate Sites 7K-C-394 and 7K-C-396 for their National Register eligibility, so that DelDOT could carry out its obligations under Section 106 of the Historic Preservation Act of 1966. The evaluations were conducted according to the standards set down in the *Guidelines for Architectural and Archaeological Surveys in Delaware* (Delaware State Historic Preservation Office 1993).

Site 7K-C-394, also known as the Alexander Laws Farm Site, consists of the archaeological remains of a farmstead established by the middle of the nineteenth century. Aerial photographs taken for the Kent County Planning Department indicate that a house and a modern concrete block barn were standing on the site as late as 1968. The house was demolished sometime after 1968 and prior to 1990. The barn was bulldozed into spoil piles inside the adjacent tree line during February of 1991. Following the demolition of the structures, the site location was entirely plowed and put under cultivation. The Phase I survey conducted by UDCAR at Site 7K-C-394 consisted of shovel testing at 20- and 40-foot intervals in the former house yard areas as depicted on nineteenth- and twentieth-century maps. The results of the shovel testing completed during the Phase I investigation revealed a high-density historic artifact concentration at the presumed former house location. In addition, a soil anomaly, designated Feature 1, was identified west of the house location, and limited quantities of historic artifacts were found to occur below the plowzone in several locations. The house and barn areas were noted by LBA investigators as being marked by light surface scatters of concrete, brick, and other artifacts. The site was evaluated within a historic context developed for the Delaware State Historic Preservation Office, *Agriculture and Rural Life in New Castle and Kent Counties, 1830-1940* (De Cunzo and Garcia 1992), to determine if the site could yield information important to the history of Delaware or Little Creek Hundred.

Site 7K-C-396 is one of several prehistoric sites located along the low-lying banks adjacent to Muddy Branch. The site is marked by a series of low-density scatters over an area



**FIGURE 2: Project Area**

*SOURCE: USGS 7.5 Minute Quadrangle, Dover, Del 1993*



measuring approximately 200x800 feet, all of which is contained within plowed and formerly plowed fields associated with the Alexander Laws Farm. The Phase I UDCAR investigations consisted of 109 shovel tests excavated at 20- and 40-foot intervals. The results of UDCAR's work indicated that several loci of prehistoric activity might be present. Prehistoric cultural remains recovered during the Phase I testing include prehistoric pottery, a chert stemmed point, and a possible feature consisting of charcoal flecks below the plowzone. Seven of the shovel tests, primarily in the central and northeastern portions of the site, contained lithic debitage below the plowzone. Grit-tempered pottery, possibly Minguannan ceramics, was concentrated in tests in the southern portion of the site, primarily within the tree line. The site was evaluated within the historic contexts for Delaware prehistory developed for the Delaware State Historic Preservation Office and presented in the *Management Plan for Delaware's Prehistoric Cultural Resources* (Custer 1986) and *Stability, Storage, and Culture Change in Prehistoric Delaware: The Woodland I Period* (Custer 1994) to determine if the site could yield information important to the prehistory of the state.

The Phase II scope of work for Sites 7K-C-394 and 7K-C-396 provided for the excavation of ten 1x2-meter (or the equivalent) test units at each site, and ten discretionary units to be excavated conditionally at either site depending on the results of the initial testing. In addition, an estimated 25 shovel tests were proposed at each site for the purpose of boundary refinement, with a further 25 discretionary shovel tests to be excavated at either site if required for other purposes. Background research to document the ownership/tenancy history of the farm included a review of deed, probate, and census records, and an examination of available cartographic documents.

Fieldwork was performed during the period from June 27 to August 5, 1994. Charles LeeDecker was the Project Manager and Randolph Taylor acted as Principal Investigator. Henry Holt supervised the field crew, which consisted of Kimber Budrow, Lorraine Durr, David Gilmour, Kevin Holliday, Julie Holt, Earl Proper, Paul Stansfield, and Anita Vyas. Historical research for the Alexander Laws Farm Site was conducted by Ingrid Wuebber. For the laboratory analysis and report production, John H. Sprinkle, Jr. served as Project Manager and John Bedell as Principal Investigator. The report was written by John Bedell, incorporating portions of the management summary written by Ingrid Wuebber and Henry Holt.

## **II. ENVIRONMENTAL SETTING**

### **A. Location**

Sites 7K-C-394 and 7K-C-396 are two of seven archaeological sites located in the eastern half of Area 4, one of several proposed wetland replacement and borrow pit areas under investigation by DelDOT for the SR 1 corridor project in Kent County (see Riley et al. 1994). Area 4 is located just northeast of Dover Downs, north of the city of Dover, along Kent County Route 88, as shown on the Dover East U.S. Geological Survey (USGS) 7.5-minute quadrangle (see Figure 2).

### **B. Physiography and Topography**

The project area is within the Atlantic Coastal Plain physiographic province, which is generally characterized by low-lying, nearly level topography. The Coastal Plain was formed by the deposition of material transported from beyond the Fall Line, and it is characterized by masses of sands and gravels of marine or fluvial origin. Both project sites are located along Muddy Branch, a small, marshy creek that flows eastward, joining Green Creek and then Simon's River, which empties into Delaware Bay. Site 7K-C-394, the Alexander Laws Farm, is situated on nearly level ground, with an elevation of 20 to 21 feet, approximately 500 feet northwest of Muddy Branch. Site 7K-C-396 occupies a low rise adjacent to Muddy Branch, including both the hilltop, up to 500 feet from the creek, and sloping ground adjacent to the wetlands on the Muddy Branch floodplain.

### **C. Soils**

Both sites are located on Sassafras loam soils, 2 to 5 percent slope. The surrounding soils are also predominantly of the Sassafras series. These soils are formed on very old sandy sediments and are moderately productive for agriculture (Mathews and Ireland 1971). Beneath the plowzone on portions of both sites LBA investigators encountered a layer of yellowish brown, relatively loose silt. The silt is probably loess, wind-deposited sediment, similar to deposits noted in many parts of Delaware and the Maryland Eastern Shore (Foss et al. 1978; Ward and Bachman 1987).

### **D. Paleoenvironment**

Given the widespread evidence of human occupation of the Middle Atlantic Coastal Plain beginning as early as the late Pleistocene, a reconstruction of the area's environmental history should consider at least the last 12,000 to 15,000 years. The primary factors to be considered in a local paleoenvironmental reconstruction are changing climatic conditions and sea levels which, in turn, influenced the local distribution of floral and faunal resources.

During the late Pleistocene, a series of massive continental glaciers advanced and retreated over much of North America. Because vast amounts of water were incorporated into these ice sheets, the sea levels were 300 to 500 feet lower than at present. The late Pleistocene was not only slightly cooler than the present, but was also characterized by higher levels of precipitation (Carbone 1976).

The generally accepted marker for the end of the Pleistocene is the beginning of the glacial retreat immediately following the Valdres substage maximum, which has been dated radiometrically to about 10,500 years before the present (Bryson et al. 1970). As the sea levels rose with the release of the glacial meltwater, the ancestral Susquehanna River Valley and the Delaware River Valley were drowned, and the rising water eventually formed the estuarine environments of the Chesapeake Bay and the Delaware.

While data indicate that sea level has been rising continuously during the past 12,000 to 14,000 years, the rate of marine transgression over the Coastal Plain has varied considerably. In the millennia immediately following the glacial maxima, sea levels rose relatively rapidly, while in the most recent millennia, sea levels have been rising at a rate of somewhat less than one foot per century (Edwards and Merrill 1977).

The biogeographical patterns of the Middle Atlantic Coastal Plain for the late Pleistocene have not yet been definitively reconstructed. Detailed paleoenvironmental syntheses have been completed for the Shenandoah Valley (Carbone 1976) and the Upper Delaware Valley (Dent 1979). These studies are useful for understanding regional paleoenvironmental conditions; however, a reconstruction of local conditions should also consider applicable pollen cores. For Delaware, Custer (1984, 1986) relies heavily on Carbone's (1976) work and discusses paleoclimatic history in terms of an episodic model wherein abrupt, rather than gradual, changes in climate influenced the regional biogeography. A summary of the paleoenvironmental history, based on Custer's (1984, 1986) statewide synthesis, is presented in Table 1.

Recent geological and palynological studies of four bay/basin features in central Delaware provide a detailed look at paleoenvironmental conditions in the vicinity of the project area (Webb et al. 1989). These studies showed that water levels were high in Delaware in the late Pleistocene, leading to the deposition of sediments in these basins at rates of up to 20 cm per year. Sometime between 9000 and 4000 BC, water levels fell and these ponds dried up, leading to a discontinuity in the depositional sequence. After 4000 BC, water levels rose and deposition resumed. Pollen recovered from these sediments was dominated by spruce, pine, and birch, showing that the environment around 9000 BC was sub-Arctic. After deposition resumed in 4000 BC the pollen was dominated by oak and buttonbush (a wetland shrub), both major species in historic ecosystems. These data do not exactly correspond to Carbone's model for the Shenandoah Valley (see Table 1). Carbone posits a dry period beginning about 8500 BC, which closely matches the new Delaware data, but he estimated that it ended by 6500 BC, in contrast

TABLE 1

## PALEOENVIRONMENTAL EPISODES, DELAWARE COASTAL PLAIN

EPISODE	DATES	GENERAL CHARACTERISTICS
Late Glacial	10,000-8000 BC	Mosaic of different vegetational communities; open grasslands within coniferous forests; deciduous elements present in wetland areas; bay/basin features open and active; animals include cold-adapted megafauna (musk ox, mammoth, mastodon), peccaries, white-tailed deer, caribou, elk.
Pre-Boreal/ Boreal	8000-6500 BC	Reduction of open grassland and spread of forest dominated by pine and northern hardwoods; extinction of Pleistocene megafauna and reduction of habitat for grazing species.
Atlantic	6500-3100 BC	Full appearance of modern environment with warm, moist conditions; continental climate with marked seasonal differences; widespread dominance of mesic oak-hemlock forests; modern faunal communities.
Sub-Boreal	3100-800 BC	Warm, dry climate (mid-postglacial xerothermic) at the beginning of the episode, followed by gradually increasing moisture and cooling temperatures; spread of grasslands and reduction of oak-dominated forests.
Sub-Atlantic	800 BC-present	Cooling reduced the moisture stress of the Sub-Boreal, leading to essentially modern conditions; upland forests include a mix of coniferous and deciduous species; reduction of sea level rise permits florescence of estuarine environments in coastal areas.

to the 4000 BC date from Delaware. However, both models posit a long dry period in the early Holocene, followed by wetter conditions, and this general agreement may be more important than the differences in dating.

### **E. Modern Environment**

Essentially modern environmental conditions were reached approximately 1,000 years ago, that is, during the Sub-Atlantic episode. Some minor climactic fluctuations have taken place since that time, but it is generally agreed that modern distributions of flora and fauna closely approximate those of the past thousand years. The only major changes have been the result of agriculture, land clearance, and other human activity, and the introduction of some Old World species.

At the time of European contact most of Delaware was covered with deciduous forest. This was a productive environment providing a variety of plant and animal resources for the human inhabitants. Oak was the dominant tree, with some loblolly and Virginia pine, hickory, and chestnut. Poorly drained areas supported a mixed forest of pin oak, willow oak, red maple, sweetgum, blackgum, and many smaller trees. A diverse mammalian community occupied these forests, with the wolf, puma, and black bear as the dominant predators and the white-tailed deer the most common large herbivore. Other species that provided important food sources for humans include turkey, groundhog, squirrel, raccoon, opossum, rabbit, and porcupine. Tidal marshes were a particularly important resource, providing fish, shellfish, turtles, and many plant foods.

Site 7K-C-394 is located in an active agricultural field. There were apparently problems with seasonal inundation at this location, because remains of a drainage ditch were discovered on the site during the Phase II investigations and a larger, modern drainage ditch is located only 200 feet away. Site 7K-C-396 is located in active agricultural fields and in a wooded buffer between the plowed fields and Muddy Branch. The woods consist of medium sized hardwoods, indicating that the site has been cleared at least once.

### III. PREHISTORIC BACKGROUND

#### A. Regional Prehistory

The prehistory of Delaware has been divided into four periods: the Paleoindian period (ca. 12,000 BC - 6500 BC), the Archaic period (ca. 6500 BC - 3000 BC), the Woodland I period (ca. 3000 BC - AD 1000), and the Woodland II period (AD 1000 - AD 1650). The time frame between AD 1600 and approximately AD 1750 marks the final years of Native American occupation of the area during early European colonization of the state (Custer 1984, 1986).

The Paleoindian period (ca. 12,000 to 6500 BC) refers to the initial occupation of the state by small groups of nomadic Native American hunters and gatherers. Their presence coincided with the transition from ameliorating late Pleistocene glacial environmental conditions into the onset of early Holocene conditions consisting of cool temperatures and alternating levels of precipitation. The economic system of the Paleoindians was based largely upon the hunting of large, cold-adapted animals, including both migratory and nonmigratory species. Although direct evidence of Paleoindian use of nonmammalian food resources is lacking in the archaeological record of Delaware, paleoenvironmental data indicate that exploitative territories of Paleoindian groups included habitats in which plant foods and other edible resources were available. Palynological and geomorphological data suggest that the vegetation in Delaware during the Paleoindian period consisted of a mosaic comprised of deciduous and boreal forests and grasslands that would have provided graze, browse, and shelter for a variety of small and large mammals. Where these habitats coincided with surface water settings, they would have been focal points for Paleoindian foragers.

The stone toolkit of the Paleoindians was characterized by a limited number of bifacial and unifacial implements that suggest a heavy emphasis on the procurement and processing of animal resources. These include projectile points, hafted and unhafted knives, scrapers, and less formalized flake tools. Of these, the fluted point is the diagnostic hallmark of the Paleoindian period. Other point styles indicative of the later part of this cultural period include both unfluted triangular forms and notched and stemmed points. The distributions and environmental settings of Paleoindian sites and isolated point finds suggest that these people maintained a way of life that consisted of relatively frequent movements of single or multiple family groups to and from resource-rich habitats. It appears that this basic subsistence/settlement strategy persisted with only minor variations for approximately 5,500 years.

Custer has identified a concentration of Paleoindian sites along the Mid-Peninsular Drainage Divide of the Delmarva Peninsula. Using LANDSAT imagery, Paleoindian site loci were found to be strongly correlated with poorly drained or swampy areas. The Hughes complex in Kent County exemplifies this Paleoindian site distributional pattern. This complex includes

a series of six surface finds located on low, well-drained knolls within or adjacent to a large freshwater swamp and other poorly drained areas (Custer 1986:49-51).

The Archaic period (ca. 6500 to 3000 BC) is characterized by a series of changes in prehistoric Native American technologies, subsistence, and settlement. These shifts are interpreted as gradual human responses to the emergence of full Holocene environmental conditions. The landscape was dominated by mesic oak and hemlock forests. Reductions in open grasslands brought about by warm and wet conditions resulted in the extinction of certain cold-adapted grazing animal species (i.e., caribou and bison) that were the favored prey of Paleoindian groups. These vegetational changes were favorable to browsing animals such as deer which flourish in such settings (Custer 1984, 1986).

A rise in the sea level and an increase in precipitation at the beginning of the Holocene would have facilitated the development of inland swamps within the Mid-Peninsular Drainage Divide. At that time, Native American populations in these locales shifted from the more hunting-oriented foraging pattern of the Paleoindian period to one in which plant foods became a more important part of their economies. In southern Delaware, large swamp habitats such as Cedar Swamp and Burnt Swamp would have served as locations for the first large residential base camps, possibly occupied by several different family groups. Associated with these larger group camps are more numerous and smaller procurement sites situated in various settings that would have been favorable for hunting and gathering activities during different seasons of the year.

Archaic toolkits differ from those of the Paleoindian period in that they include a number of artifacts indicative of plant food processing (i.e., grinding implements and stone mortars). Although Archaic groups in Delaware appear to have been less mobile than the preceding Paleoindian populations, they were more mobile than later Woodland period groups. The sizes of Archaic exploitative groups seem to have fluctuated seasonally and with the availability of food resources.

Based upon palynological and geomorphological data from the Middle Atlantic region, the Woodland I period (ca. 3000 BC to AD 1000) has been described as a time of "dramatic change in local climates and environments" in which "a pronounced warm and dry period" (i.e., a mid-postglacial xerothermic) began at approximately 3000 BC and persisted to approximately 1000 BC (Custer and Bachman 1984). During that period, the mesic oak hemlock forests of the Archaic were replaced by more drought-resistant (xeric) oak and hickory forests and more abundant grasslands. Although these conditions effected the drying up of some interior streams, continued sea level rise resulted in the creation of highly productive and large brackish water marshes. In essence, the xerothermic is hypothesized to have effected shifts in the distributions of plant and animal species and the establishment of new resource-rich settings in some areas of the state.

In turn, these proposed shifts in climate, environmental conditions, and resource distributions are believed to have resulted in radical changes among resident prehistoric Native American populations in the study area including a trend toward greater sedentism and more complex systems of social organization and interactions. For example, major river floodplains and estuarine swamp habitats became the primary resource zones and the locations of large residential base camps occupied on a multiseasonal or year-round basis. Such sites are particularly prominent in northern Delaware; they include the Delaware Park Site, the Clyde Farm Site, the Crane Hook Site, and the Maamans Creek Site. Artifact assemblages and features from these sites suggest intensive utilization by prehistoric populations and a trend toward more sedentary lifeways. In southern Delaware, there was an increase in the utilization of shellfish in the coastal areas, concurrent with an inland shift in the locations of macro-band base camps along the tidal drainages. Within the Mid-Peninsular Drainage Divide zone, there is little evidence that site distribution patterns changed from the preceding Archaic period (Custer 1986).

The toolkits of Woodland I groups contrast with those of the Archaic by the addition of such items as heavy woodworking tools, soapstone and ceramic containers, broad-bladed points, and netsinkers. The increased abundance of plant processing tools over the preceding period suggests more intensive utilization of plant foods, which by the end of Woodland I times may have approached the level of productive intensification. The presence of nonlocal lithic materials such as argillite, rhyolite, and soapstone is interpreted as an indicator of incipient regional trade and exchange networks. Soapstone and ceramic vessels are viewed as items that facilitated more efficient food preparation and storage of surplus foods. Pit features employed for food storage and the remains of prehistoric dwellings have been documented at the Delaware Park and Clyde Farm sites in northern Delaware.

The inferred reduction in overall group mobility, the presence of certain artifact types indicative of intensified resource processing, the possible generation of food surpluses, the presence of artifact caches, and the possible existence of increased interregional exchange networks as inferred from the presence of nonlocal lithic raw materials are interpreted as indicators of the initial development of ranked social organization as opposed to earlier egalitarian systems.

The Woodland II period (ca. AD 1000 to 1650) within the Middle Atlantic region is marked primarily by the development of horticulture and increased sedentism. During this period, villages became larger and more permanent and tended to be located adjacent to areas with easily worked floodplain soils. This period is also characterized by a reduction in the interregional trade and exchange systems.

Two Woodland II complexes have been defined for Delaware. In southern Delaware, the Slaughter Creek complex is characterized by the presence of Townsend ceramics, triangular projectile points, large macro-band base camps, and possibly fully sedentary villages with

numerous food storage features. Most major sites assigned to the Slaughter Creek complex have been identified in the Delaware Shore, Mid-Drainage, and Coastal/Bay physiographic zones of southern Delaware. Current Slaughter Creek complex settlement models indicate that the Mid-Peninsular Drainage Divide zone would have been used for special resource procurement sites (Custer 1986).

The Contact period (ca. AD 1600 to 1750) is marked by both the initial contact between the Native American inhabitants of Delaware and European colonists and the total collapse of traditional native lifeways and sociopolitical organization. The picture is further complicated by the paucity of sites dating to this important period within the state. However, historical sources indicate that resident Native American populations had minimal interaction with European settlers and were subjugated by the Susquehannock of southern Lancaster County, Pennsylvania. A small number of descendants of the original Native American inhabitants of Delaware still reside in the state today.

## **B. Previous Investigations**

A substantial amount of archaeology has been done near the Sarro Wetland Replacement Site. Prior to 1985 amateur archaeologists had identified 11 prehistoric sites in the Muddy Branch, Dyke Branch, and Little River drainages. Studies undertaken by UDCAR as part of the SR 1 corridor project have resulted in the identification of 25 additional sites in the area (Custer et al. 1986; Bachman et al. 1988; Riley et al. 1994). Most of these sites are located along streams, and the largest sites are all located at the confluence of one of the larger streams and a smaller tributary (Figure 3).

No sites dating to the early Paleoindian (Clovis) period have been found in the vicinity of the project area. Five of the largest sites, 7K-C-86, -87, -88, -90, and -364, have yielded artifacts diagnostic of all periods from the late Paleoindian (7500 to 6500 BC) to the Late Woodland (AD 1000 to 1600). (Inventories of the collections from these sites are printed in Custer et al. 1986: appendix II.) The continuing reuse of these sites shows the importance of the wetland environments with which they are associated to all the prehistoric inhabitants of the region. In fact, continuity of occupation is one of the most striking aspects of this assemblage of sites. The five multi-component sites listed above are the only ones with evidence of Paleoindian occupation. The only other site that has yielded evidence of occupation in the Archaic period (6500 to 3000 BC), Site 7K-C-360, was also occupied in the Woodland I period (3000 BC to AD 1000). All of the sites with Woodland II components, including those listed above and 7K-C-23, -40, -99, and -365, were also occupied in the Woodland I period. The only sites that have yielded material diagnostic of a single prehistoric period are 7K-C-97 and 7K-C-99, which are small sites from which a few Woodland I projectile points were recovered. The remainder of the sites, 7K-C-342, -343, -345, -347, -348, -349, -350, -351, -354, -361, -362, -366, -372, -373, -388, -395, -399, and -409, are all small, undated lithic scatters.



**FIGURE 3: Prehistoric Sites in the Vicinity of the Project Area**

*SOURCE: USGS 7.5 Minute Quadrangle, Dover, Del 1993*

Full-scale excavations have been carried out at two sites in the vicinity, 7K-C-360 and 7K-C-365 (Riley, Watson, and Custer 1994). Site 7K-C-360 is an Archaic and Woodland I transient camp located 800 feet north of Dyke Branch on a low, sandy knoll, surrounded by wetlands. Excavations at the site revealed cultural deposits that had been buried by three distinct depositional episodes, all probably aeolian. The majority of the artifacts from the site were lithic debitage derived from local jasper, chert, and quartz cobbles, which were primarily being processed into expedient flake tools. No ceramics were recovered from the site. The few charred plant remains recovered, chenopodium and amaranth seeds and unidentified nut fragments, suggest autumn occupation. Site 7K-C-365 is located on a small knoll—steep by Kent County Standards—100 feet from Muddy Branch. The site has a long occupation history, from late Paleolithic (Dalton) times to the Woodland II period. The lithic artifacts were similar to those from 7K-C-360 and suggest a similar industry, except that the debitage from Site 7K-C-365 included a higher percentage of quartzite.

Because of the intense archaeological activity in the Muddy Branch and Dyke drainages, reasonably firm projections can be made about the types of sites expected in the project area. Since the project area is not located at the confluence of Muddy Branch and a substantial tributary, Site 7K-C-396 is probably not a large base camp. Instead, it is most likely a transient camp or procurement site (Custer 1994). The lithic industry is probably based on local cobbles. Intact, buried strata, indicated by the Phase I survey, are not rare in the area, and could result from aeolian processes or slopewash. Since most of the datable sites in the area were revisited repeatedly over thousands of years, Site 7K-C-396 may have been occupied in two or three different prehistoric periods.

## IV. HISTORICAL BACKGROUND

### A. Regional History

#### *1630-1730*

The first European to explore the Delaware River was Henry Hudson, who visited both the Hudson and the Delaware on his famous voyage of 1609. The English were slow to follow up on Hudson's discoveries, and in the 1610s Dutch traders plied the Delaware River. In 1631 the Dutch West India Company, formed to administer the Dutch land claims in North America, established a fishing and agricultural settlement called Swanendael near modern Lewes. The settlers came into conflict with a local Native American group called the Sickoneysincks, and the settlement was abandoned in 1632. In 1638 the Swedish government, acting in consort with dissident Dutch merchants, "purchased" the land on both banks of the Delaware from Cape Henlopen to modern Trenton from various Native American groups and set up a settlement called New Sweden. The center of the colony was Fort Christina, constructed at the confluence of the Christina River and Brandywine Creek in modern Wilmington. Swedish and Finnish immigrants set up scattered farms in the nearby countryside (Weslager 1961).

The Dutch West India Company, which still claimed the entire coastline from New York to the Chesapeake Bay, prepared to dispute the pretensions of the Swedes, and in 1651 they set up Fort Casimir at the present site of Newcastle. After five years of back and forth military struggle, the Dutch captured Fort Christina in 1655 and New Sweden ceased to exist as a political entity. Swedish and Finnish settlers remained in the region, however, and the log cabin of the American frontier may have been derived from their traditional building techniques. In the years that followed, the Dutch established other settlements in the region, including New Amstel at the old site of Fort Casimir. To resist the incursions of English settlers from the Chesapeake Bay region, a fort was constructed at modern Lewes, an area the Dutch called the Whorekil. In 1663 the Dutch West India Company handed over the administration of all its colonies in North America to the city of Amsterdam.

In 1664 English forces, acting on behalf of the Duke of York, brother of King Charles II, attacked and pillaged the Dutch settlements on the Delaware and the Hudson. Political control of the colonies passed from Amsterdam to the Duke of York, but his agents allowed Dutch and Swedish settlers to retain their lands and Dutch magistrates to keep their offices under his authority. In 1682 proprietary rights over the Delaware settlements were granted to William Penn, ending an inter-English rivalry, between the Duke of York and Lord Baltimore. Modern Delaware became the "three lower counties" of Pennsylvania, with political control based in Philadelphia. The residents of the lower counties became disgruntled with their status in the Pennsylvania legislature, and in 1704 they broke away and created the new colony of Delaware (Munroe 1993:42).

Settlement in the vicinity of the Laws Farm began in the 1660s under the Dutch, primarily along the St. Jones River. In 1680 the area, which had been part of Whorekil, was incorporated as St. Jones County. The name was changed to Kent in about 1682, at which time a census listed 99 inhabitants in the new county (Scharf 1888:1030). The county court met at private houses until about 1697, when a courthouse was built near a landing on the St. Jones River in what is now Dover. In 1699 some of the residents, seeking a central place for their community, petitioned the Assembly to establish a town, to be called Canterbury, at the courthouse. The Assembly, agreed, but specified that the town be called Dover. Little development took place in the new town, however, and in 1717 the residents petitioned the Assembly to refound it; again the Assembly complied, and commissioners were appointed to lay out the land in lots and sell them. A town was set up, with a central square at the intersection of the King's Road and a road called Long Street. Growth was still slow, but by 1729 a number of lots had been purchased and houses built.

### *1730-1770*

The eighteenth century saw enormous population growth in Delaware, as in most of English North America. The population grew from perhaps 400 settlers in 1682 to over 64,000 in 1800. The new immigrants came from England, Ireland, Africa, and other, more crowded colonies, particularly Maryland. Dissenters, such as Presbyterians, Quakers, and Methodists, were a majority among these new arrivals, reducing the official Anglican church to minority status. The main settlements of the colony were the ports of New Castle and Lewes, with smaller hamlets growing up at places such as Christina Bridge and Cantwell's Bridge, where roads crossed the larger streams. Most of the residents were farmers, their homes mostly scattered along the rivers and later along the main roads. These farmers practiced a mixed, highly commercialized agriculture, including grains (especially wheat and corn) and livestock. Wheat was the most important export. Roads were developed to carry traffic between the towns; one of the most important was the north-south road from Wilmington to Lewes.

Because of the shortage of navigable waterways, growth in Kent County was slower than in Newcastle. The poorly drained interior of the county was particularly slow to develop. A further complicating factor was a long-running boundary dispute with Maryland, which was not resolved until 1765. At that time a number of settlers who had received their patents from Lord Baltimore, and thought of themselves as Marylanders, found that they were living in Delaware, and several major property disputes were created by the conflicting patents.

### *1770-1830*

In the eighteenth century Delaware retained close economic ties with Philadelphia, and many of the colony's leaders also had social and family ties in the city. Those ties led the leaders of Delaware into supporting the political fervor that preceded the American Revolution,

even though Delaware had suffered no atrocities at British hands (Munroe 1993:62). Only one Revolutionary War battle was fought in Delaware, at Cooch's Bridge near Scottsborough during the campaign that led up to the Battle of Brandywine in 1777.

After the Battle of Brandywine, a British victory, the British occupied Wilmington and threatened the state capital at Newcastle. To escape the threat—and also because many Kent and Sussex residents were unhappy with the leadership being provided by Newcastle men during the crisis—the capital was moved to Dover. For a time the legislators met at various places around the state on a rotating basis, but in 1781 Dover was made the permanent capital. This move was a boon to the town, which grew sharply in the next decade.

In the early Federal period Delaware farmers were buoyed by inflated wheat prices, brought on by the Napoleonic Wars. However, after the return of peace in 1819 the state experienced an agricultural decline, as careless farming practices exhausted the land and many residents moved farther west (Hancock 1947:374). From 1810 to 1840 the population of Kent County actually fell, from 20,495 to 19,872. To arrest the decline, progressive farmers formed agricultural societies and experimented with new crop rotation methods, and their efforts led to more productive and less destructive agricultural practices later on in the century (Herman 1987:8). Kent County lagged behind New Castle in adopting the best practices, but by the 1850s significant improvements had been made (Hancock 1947:377). Delaware's industrial production increased in this period, mostly in the Piedmont region where water power was available to drive gristmills, fulling mills and snuff mills. An interesting feature of Delaware society in this period was the large number of free blacks, who in 1810 made up more than 75 percent of the black population of the state. Politically, Delaware, which had been the first state to ratify the constitution, remained staunchly Federalist throughout the period (Munroe 1993:85).

Although goods had been loaded at Fast Landing, now Leipsic, since the seventeenth century, a town did not begin to grow up at the landing until the early 1800s. The town served as a shipping point for grain and vegetables grown in the surrounding area, and—as a focus for the profitable trade in muskrat furs. In 1814 the name of the town was changed to Leipsic, a center of the European fur trade. By 1850 about 250 people lived in the town, and its port was a "hive of activity" (Nelson 1983).

### *1830-1870*

The increasing urbanization and industrialization of the eastern seaboard, along with steamships, the railroad, and other improvements in transportation, had a major impact on Delaware. Wilmington grew into a major city, with important manufacturing industries. The arrival of the railroad in 1854 led to a boom for Dover but was a major blow to Leipsic, Little Creek Landing, and other port towns, which were never again important regional centers. The railroad also had major impacts on agriculture. Although grain remained an important crop,

agriculture shifted toward the production of fruits and vegetables for Wilmington, Philadelphia, and other cities. Starting in about 1830, a boom in peach growing made many fortunes in Newcastle County and eastern Kent County. The agricultural expansion led to a great rebuilding in these areas, and many fine, large farmhouses survive from the period (Herman 1987). Western Kent County also began to modernize, and the excavation of drainage ditches raised productivity there as well. The Civil War had no great impact on the economy of the region, since the state saw little fighting and free black labor was already far more important than the relatively few slaves.

Detailed statistics available for this period allow some generalizations to be made about the social side of agriculture in Delaware (De Cunzo and Garcia 1992). Approximately 50 percent of farms were occupied by their owners, the other 50 percent by tenants. Some tenants paid cash rents, others a share of their crops. In all areas farm ownership was strongly correlated with age; older men were much more likely to own farms. Many tenants were able to accumulate enough capital to buy their own farms later on. Farm laborers, who worked for cash and board, outnumbered operators in all parts of the state, but especially in the south. A few blacks owned farms in this period, and a few more were tenants, but the great majority of the rural black population were laborers. The few black-owned farms were almost all on inferior land, valued at much less than the land of the average white farmer.

The first detailed map of Kent County was published by Byles of Philadelphia in 1859 (Figure 4). The map shows small towns at Leipsic, Cowgills Corner, and Little Creek Landing and farms spread rather thinly on the roads connecting them. The 1868 Beers *Atlas of the State of Delaware* (Figure 5) shows the increasing population growth around Dover, fed by the railroad. Other, smaller towns on the railroad, such as Dupont Station, were also growing, as port towns such as Leipsic declined.

#### 1870-1940

The late nineteenth and early twentieth centuries in Delaware saw a continuation of trends begun in the 1830-1870 period. Wilmington continued to grow, and in 1920 it held nearly one in two residents of the state. The peach orchards never recovered from a devastating blight in the 1870s, and much of the less productive farmland was abandoned. The farm population began to fall as mechanization made agriculture less labor intensive and competition squeezed out many smaller farms. The depression of the 1930s saw a particularly high rate of farm abandonment. However, on Delaware's better soils grain and truck farming remained profitable, and Delaware farmers benefited from the worldwide surge in food prices that enriched so many American farmers in the 1890-1920 period (De Cunzo and Garcia 1992:28). New crops, such as strawberries and asparagus, helped many farmers. The economy of Little Creek Hundred received a substantial boost in 1881 when a cannery, for many years the largest in the state, opened in Leipsic (Nelson 1983).



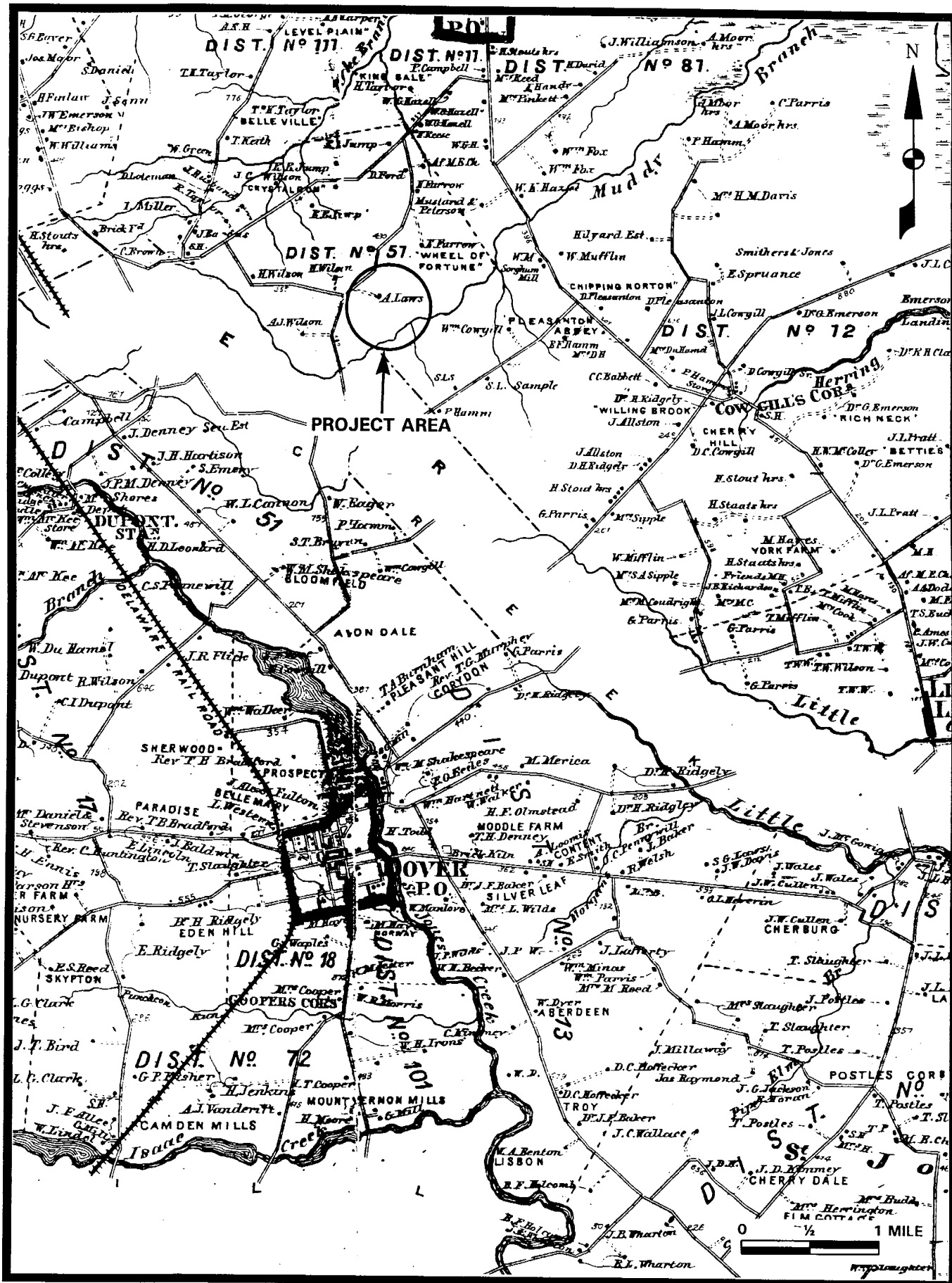


FIGURE 5: Project Area in 1868

SOURCE: Beers 1868

### *1940 to the Present*

The expansion of state government and the development of Dover Air Force Base have led to major growth in Dover. Between 1945 and 1965 the population of the city more than doubled, and its boundaries were expanded to incorporate new housing tracts springing up in the surrounding countryside (Munroe 1993:242). The Route 13 corridor, less than a mile west of the Alexander Laws Farm, has developed into a major commercial strip. Agriculture remains economically important in the region, although the acreage in production continues to decline under the impact of suburbanization.

### **B. Site History**

The Alexander Laws Farm, also known as the Leipsic Road Farm, is located in Little Creek Hundred about a mile northeast of Dover. The farm was part of a large tract called "Wheel of Fortune" patented in the seventeenth century by Richard Wilson and Richard Williams. In the eighteenth century the tract was said to contain 568 acres. Several pieces of the tract were later purchased by John Hamilton, a wealthy local landowner, including 200 acres he bought from John Houseman in 1747 that included at least part of the Laws Farm (Kent County Deeds N:152).

The 208-acre tract that later became the Alexander Laws Farm was assembled by John Hamm (or Ham), a well-to-do merchant and farmer who purchased three parcels of land from John Hamilton's heirs in 1771 and 1772 (Kent County Deeds T:45, 197, 202) (Table 2). The farm, located on both sides of the road from Dover to Fast Landing (Leipsic), was one of the oldest in the county, appearing in a deed of 1714 (Scharf 1888 I:1119). When John Hamm died, in 1798, he bequeathed the Laws Farm, on which he lived, to his son Charles. John Hamm's will (Kent County Wills N:203) and probate inventory (Kent County Probate Records A 21:151, 178-183; see Appendix B) convey his considerable wealth. To his son Dr. John Hamm, for example, he left a gold watch, an eight-day clock, several pieces of silver, a quarto Bible, a riding horse, a 15-year-old slave boy, and 200 pounds in money. His lands included six tracts of farmland containing at least 513 acres (the size of one tract is not given) and town lots in Dover. His inventory lists other luxury goods, including a carriage, a silver watch, a mahogany table and chairs, a walnut chest of drawers, a bookcase and books, and ten slaves.

Charles Hamm did not assume ownership of the farm until he came of age in 1801. When the 1800 U.S. Census of Delaware was taken, the household was headed by his mother, Susannah, and included one woman over 45 (Susannah), two women aged 16 to 26, two men aged 16 to 26, and two girls under ten. The 1810 U.S. Census records that Charles and his wife Letitia lived with 16 people, six of whom were slaves and five of whom were former slaves. In 1823 Charles and Letitia Hamm bought and moved to a farm on the State Road (present Route 13). They mortgaged the farm Charles had inherited from his father to Nicholas Ridgely, a local

TABLE 2  
CHAIN OF TITLE FOR THE ALEXANDER LAWS FARM, 1747-1970

Owner	Dates	Occupancy	Tenant
John Hamilton	1747-1771		
John Hamm	1771-1798	Owner	
Charles Hamm	1798-1823	Owner	
Charles Hamm	1823-1829	Tenant	Samuel Rigs
Nicholas Ridgely	1829	Tenant	
Henry Ridgely	1830-1856	Tenant	Jacob Reeves
Joseph Foreacres	1856-1858	Owner	
Alexander Laws	1859-1868	Tenant	Charles Wheatman
Merritt Spinning and Wells Sexton	1868-1872	Owner (Spinning)	
Wells Sexton	1873-1877	Tenant	Henry Wilson
Sybrandt Nelson	1877-1878	Tenant	
Moses and Leanna Schneck	1878-1889	Owner	
Leanna Schneck	1889-1903	Tenant	Satterfield Taylor
Samuel C. Hill/ Wilmington Trust Co.	1903-1970	Tenant	
Little Creek Land Trust	1970-1994	Tenant	

magnate with whom they had family connections (Runk 1899:724). At the time of the 1828 Little Creek Hundred Tax Assessment (p. 35), the Laws Farm was leased to Samuel Rigs. The Hamms quickly defaulted on the mortgage, and in 1829 the Laws Farm was sold by the sheriff to the same Nicholas Ridgely (Kent County Deeds K4:233).

Nicholas Ridgely was a member of one of Delaware's most prominent families, and he was Chancellor of the State of Delaware. He died in 1830, leaving all his real estate to his nephew, Henry Ridgely. (In his will, Nicholas Ridgely freed all his slaves.) Henry Ridgely, a minor at the time of his uncle's death, went on to earn a degree in medicine but practiced for

only a few years. He had various business interests, becoming a director of the Farmer's Bank at the age of 26, an organizer of the Delaware Railroad Company, and a notable peach and grain farmer (Scharf 1888 I:1071). Neither Nicholas nor Henry Ridgely ever lived at the Laws Farm, so during the period of their ownership the farm was probably leased to a tenant.

The Little Creek Tax Assessments for 1852 to 1856 (p. 96) show that Dr. Henry Ridgely owned a 208-acre farm in the hundred (which must be the Laws Farm) and had leased it to Jacob A. Reeves. The farm is said to consist of 150 acres improved and 58 improved, with an old frame dwelling house, stable, and cribs in "tolerable repair." At the same time, Jacob A. Reeves was assessed for two horses, one yolk of oxen, four cows, two yearling heifers, and seven pigs, but no lands or buildings (Little Creek Tax Assessments p. 92). Statistics from the U.S. Agricultural Census of 1850 allow comparisons to be made between the Laws Farm and other Delaware farms. It was larger than the average size of 158 acres, and a greater percentage of the land was improved (72 percent vs. the average of 61 percent; De Cunzo and Garcia 1992:32).

In 1856 Henry Ridgely sold the Laws Farm to Joseph C. Foreacres, a resident of neighboring Duck Creek Hundred. Foreacres took out a mortgage with Ridgely for most of the purchase price of the farm (Kent County Deeds L4:223) and appears to have set up residence there. Foreacres appeared in the 1850 U.S. Census, when he was 26 years old; he lived with wife Mary, aged 28, two sons aged 3 and 1, and a farmhand named Franklin Moffitt. Two years later, in 1858, Joseph C. Foreacres sold the farm to Alexander Laws, a Leipsic merchant (Kent County Deeds O4:474). The farm was once again put under the care of a tenant farmer. According to the 1860 Little Creek Hundred Tax Assessments (p. 77), the Laws Farm, including a two-story dwelling, cribs, granary, and stable "in good repair," was leased to Charles Wheatman. Two Charles Wheatmans appear in the 1860 U.S. Census for Little Creek Hundred, one a single farmer, 22 years old, the other a 32-year-old farmer with a wife, a grown step-daughter, and four white servants. The latter seems the more likely to have been the occupant of the Laws Farm.

Alexander Laws owned the farm until 1868 when he sold it to two men from Oneida County, New York, Wells D. Sexton and Merritt Spinning. Alexander Laws is indicated as the owner of Site 7K-C-394 on both the Byles map of 1859 and the Beers map of 1868.

Merritt Spinning moved to Little Creek Hundred and took up residence on the Laws Farm. According to the 1870 U.S. Census, Spinning was then 34 years old, and he shared his home with his wife, Emma, two sons aged 8 and 10, and a 5-year-old daughter. Spinning was listed in the 1870 Agricultural Census. His main crops were "orchard products," presumably peaches, which accounted for \$1,200 of the \$2,170 worth of produce he sold in the year, winter wheat (275 bushels), corn (200 bushels), and potatoes (100 bushels). The farm also produced 225 pounds of wool from 50 sheep and 200 pounds of butter from 4 cows. Spinning paid \$400 in wages to his farm laborers, and his farm was valued at \$10,000.

In 1873, the Spinnings sold their share of the farm to their partner, Wells D. Sexton. Sexton remained in New York and leased the farm to tenants. In 1876 the tenant was Henry L. Wilson, and the farm was said to include 160 acres of arable land, 54 acres of bush, and a two-story dwelling house and "outbuildings" in "fair repair" (Little Creek Hundred Tax Assessments). In 1877 Wells Sexton died; his heirs sold the Laws Farm to Sybrandt Nelson of Madison County, New York (Kent County Deeds W5:159). In 1878 Nelson resold the farm to Moses Schneck of Philadelphia, Pennsylvania (Kent County Deeds Y5:435).

Moses Schneck moved to the farm, and he is listed in the 1880 U.S. Census. He gave his age as 52, and he shared his household with his wife, Leanna, a 19-year-old son, two farmhands, and a female servant. According to the 1880 Agricultural Census, the Schnecks raised 500 bushels of corn, 200 bushels of oats, and 100 bushels of wheat, as well as buckwheat, potatoes, sweet potatoes, butter, and 50 dozen eggs. His 200 apple trees yielded 250 bushels, but his 200 peach trees only 20 bushels. The farm had greatly declined in the preceding decade. The value of the farm's orchard products had fallen from \$1,200 in 1870 to only \$50 in 1880, the value of all agricultural products from \$2,170 to \$470, and the farm's value from \$10,000 to \$4,000. In 1889 the Schnecks transferred all interest in the farm to the wife and moved back to Philadelphia, and the farm was once again let to tenants. According to the 1896 Tax Assessments, the farm was leased to "S. Taylor"; the most likely Taylor in the same assessment is Satterfield Taylor, who owned four horses and two cows, but no land.

In 1903, Leanna Schneck, by then a widow, sold the farm to Samuel C. Hill of Wilmington. Hill was a businessman who owned one half of the Wilmington Paper Box Company and was a partner in the Wilmington Trust Company (Kent County Wills 1/3:224); the Laws Farm was once again leased to tenants. In 1970, Hill's heirs directed the Wilmington Trust Company to sell the farm to the Little Creek Hundred Land Trust (Kent County Deeds U25:286), which purchased it on behalf of property developers. No dwelling is mentioned in the 1970 deed, so the house may by then have been abandoned.

The history of the Laws Farm presents considerable difficulties for the interpretation of Site 7K-C-394. The very small quantities of creamware (1762-1820) and pearlware (1780 to 1840) recovered and the absence of white clay tobacco pipes effectively rules out occupation of the site before 1830, and there was very little archaeological evidence of occupation before 1850. Clearly there was another, earlier dwelling somewhere else on the farm. The deeds offer no evidence of a move, describing what seems to be the same two-story frame house from the beginning of the nineteenth century to its end, so the move cannot be dated from the deeds. The map evidence is also inconclusive. Both the 1859 Byles map and the 1868 Beers atlas show the "A Laws" residence somewhere within the Sarro Wetland project area, but neither places it at Site 7K-C-394. Byles placed the residence south of 7K-C-394, near where the Leipsic Road crossed Muddy Branch, while Beers placed the house about 500 feet north of the site. However, neither of these maps is completely accurate, and the site is within the margin of error of both.

It seems, therefore, that the farmhouse was at least near 7K-C-394 by 1859. The location of the earlier house is unknown. Recent USGS maps show that the large barn on the site was constructed between 1956, when a cluster of small outbuildings is shown in its location, and 1981 (Figure 6).



## **V. METHODOLOGY**

### **A. Field Methods**

The Phase II archaeological investigation of Sites 7K-C-394 and 7K-C-396 was carried out by the hand excavation of shovel tests and test units. The proposal for the project specified unit size and grid intervals in metric measurements, but this approach was modified to maintain consistency with the previous UDCAR investigation, in which English measurements were employed. The revised Phase II plan called for the excavation of 24 3x3-foot test units, 12 on each site, and up to 24 discretionary units to be excavated on either site as warranted. In order to utilize the Phase I survey grid, shovel tests were excavated at 20- and 40-foot intervals. The survey grid was reestablished from the remains of the barn foundations at Site 7K-C-394, and by relocating Phase I shovel tests in the wooded part of Site 7K-C-394.

Shovel tests at Sites 7K-C-394 and 7K-C-396 measured approximately 4.5 feet in diameter and were excavated until sterile soil was reached. The excavation of shovel tests proceeded by plowed and natural stratigraphic soil horizons. Strata were excavated separately and designated by letters in an alphabetic sequence according to their relative stratigraphic position. Excavated soil were screened through ¼-inch hardware mesh for systematic artifact recovery. All artifacts were collected and cataloged according to shovel test and stratigraphic provenience. Munsell soil color notation and USDA soil texture nomenclature were employed to standardize descriptions of all excavated strata. Standardized LBA shovel test forms were used to record field data following the completion of each test. After each provenience was cataloged, the quantities of recovered cultural materials were recorded on maps to illustrate the distributions of different historic and prehistoric artifact classes. These data, in conjunction with the results of the Phase I investigation, were later used to determine test unit placement.

Test units at each site were excavated in areas where artifact concentrations or possible archaeological features had been identified during shovel testing. The units were excavated in arbitrary 0.3-foot levels within natural stratigraphic soil horizons. The plowzone layer, present in all of the Phase II units, was removed as a single natural level. Two-liter flotation samples were removed from all identified features, and from a sample of unit levels containing prehistoric artifacts below the plowzone. Profile drawings were completed of at least one wall from each unit, and a representative sample of all wall profiles was photographed in black-and-white print and color-slide film. Plan view and bisection drawings were prepared for all features, and all features were also photographed using black-and-white and color film.

### **B. Laboratory Methods**

The artifacts from Sites 7K-C-394 and 7K-C-396 were processed according to the standards of the Delaware State Museum, which will be the final repository. All proveniences

were assigned Delaware State Museum Ascension Numbers. Site 7K-C-394 was assigned Ascension Numbers 94/51/1-120, and Site 7K-C-396 was assigned Ascension Numbers 94/52/1-112. All artifacts were transported from the field to LBA's laboratory in East Orange, New Jersey. After being cleaned and sorted according to major material categories (prehistoric lithics, prehistoric ceramics, historic ceramics, glass, small finds, etc.), the collections were analyzed by specialists and the artifact attributes were coded on computer data entry forms. Artifact cataloging and tabulation were accomplished using LBA's computerized database system. The system is written on an IBM PC-compatible computer using R:BASE System V, a relational database development package. The database allows more than a dozen attributes to be recorded for each artifact. In addition to standard descriptors, the database allows the entry of lengthy notes specific to individual artifacts. LBA's database handles both prehistoric and historic artifacts, with separate but linked datafiles for each. The system also allows ad hoc data queries as well as data exports to other microcomputer systems for analysis at remote locations. After analysis, the artifacts were re-bagged into clean, 4-millimeter, resealable plastic bags with air holes. An acid-free artifact card with provenience information and catalog number was included in the bags.

Historic artifacts were cataloged according to standard typologies (Noel Hume 1970; South 1977), using the class, type, and variety approach (for example, class = glass, type = bottle, variety = case). First, the entire collection was sorted according to major classes: ceramics, curved glass, and small finds. The small finds class is a residual or catch-all category that comprises a broad variety of items, including artifacts assignable to South's (1977) Architectural, Furnishings, Arms, Personal, Clothing, and Activities groups. Cataloging of the ceramics and glass was carried only to the level of individual sherds, and no crossmends or Minimum Number of Vessel determinations were made. Dating of deposits was accomplished primarily by the Terminus Post Quem (TPQ) technique, using the beginning date of manufacture for artifacts with a known temporal range. Some artifact attributes, including the date range, were automatically entered by the computer for common artifact types. Data processing speed and storage were enhanced by the use of alphabetic and numeric codes for the various attributes, but more lengthy "translations" are printed on the catalog sheets. For example, "CRW 10" translates to "ceramic, whiteware, shell-edged blue," with an automatically entered date range of 1820 to 1900.

The cataloging of prehistoric artifacts was carried out according to a technomorphological classification system. First, the collection was sorted into major formal classes: bifacial tools, unifacial tools, cores, chunks, flakes, cracked rock, and ceramics. Within the major lithic classes, each item was then classified according to more specific functional types. Debitage was divided into decortication flakes, early reduction flakes, biface reduction flakes, bipolar reduction flakes, block shatter, flake shatter, and flake fragments. A notation was made of whether each piece of debitage included cobble or block cortex. The core types identified in the collection were bipolar cores and freehand cores. Unifacial tool types include utilized flakes, retouched flakes, sidescrapers, and endscrapers. Incompletely finished bifacial tools were sorted

according to the early-stage, middle-stage, and late-stage categories defined by Callahan (1979); other types include projectile points and indeterminate biface fragments. All lithics were sorted and coded according to raw material and weight. The length, width, and thickness of bifaces and unifaces were measured. Ceramics were cataloged according to temper, surface treatment, and surface decoration and assigned to a formally defined ware if possible.

A catalog listing of the recovered cultural material has been prepared to accompany the artifact collections and is available from the LBA Cultural Resource Group in East Orange, New Jersey, and from DelDOT.

## **VI. ARCHAEOLOGICAL FINDINGS: SITE 7K-C-394**

Site 7K-C-394, the Alexander Laws Farm, is a nineteenth- and twentieth-century farmstead. A house and barn were still standing on the site in 1968, when aerial photographs were taken for the Kent County Planning Commission, and the foundations of the barn were still visible at the time of the Phase I survey in 1990. The foundations were subsequently destroyed, and the entire site was plowed.

### **A. Previous Work**

Site 7K-C-394 was discovered during a Phase I survey carried out by UDCAR in 1990. A total of 48 shovel test pits were excavated at 20- and 40-foot intervals in the location of the historic house. The tested area measured approximately 300x300 feet, and its northern edge was approximately 150 feet south of the barn foundation. The shovel testing located an area of high artifact density, yielding from 15 to 57 artifacts per shovel test, not far from the projected house location. No evidence of the house foundations was discovered, but one feature was located. The feature consisted of a shallow (0.4-foot) layer of highly organic, artifact-rich silty loam between the plowzone and sterile subsoil.

Artifacts recovered from the site were typical of late nineteenth- and twentieth-century domestic sites. The finds included sherds of whiteware, ironstone, yellowware, and American or English porcelain, mold-blown and machine-made bottle glass, wire and cut nails, coal, window glass, and brick. Numerous white milk glass canning jar seals and fragments of Mason and Ball canning jars were also recovered. Only three shovel tests yielded cultural material from below the plowzone.

### **B. Phase II Testing**

#### *Shovel Testing*

A total of 65 shovel test pits were excavated at the Alexander Laws Farm Site during the Phase II investigations in order to further refine the boundaries of the site (Figure 7). The shovel testing showed that the greatest concentration of artifacts from the site, and architectural material in particular, was approximately 200 feet southeast of the barn foundation (Figure 8). The artifacts recovered from this location, almost all from the plowzone, include brick, window glass, cut and wire nails, and domestic refuse such as ceramics and bottle glass. In this regard the Phase II testing duplicated the findings of the Phase I survey. It was initially assumed that this artifact concentration represented the location of the house. However, this is not the location of the house shown on the 1968 aerial photographs of the site, taken by the Kent County Planning Department, or on the older USGS maps (see Figure 6). These documents show the dwelling to be located approximately 100 feet grid south of the barn, on the south side of a two-track lane

which served as the driveway to the house complex. Shovel tests in this location recovered only moderate numbers of artifacts. Unit excavations within the artifact concentration located several postholes, suggesting that the area was a barnyard, not a house site. The most likely explanation for the discrepancy is that the house was demolished with a bulldozer and the debris shoved around the site. The area of highest artifact density represents not the original location of the house but the place where trucks were loaded to haul away its remains. The small size of the high-density artifact concentration, approximately 40x80 feet, supports this hypothesis.

The additional shovel testing performed by LBA also further refined the artifact distribution north, east, and south of the house location. As a result of this effort, two minor artifact concentrations were defined which are peripheral to the artifact concentration associated with the main dwelling. These smaller clusters were initially thought to be possible outbuilding locations, but they were subsequently shown to be secondary deposits relating to demolition.

A field scatter consisting primarily of modern architectural artifacts was noted extending to the northeast of the main concentration and was tested with Shovel Test Pits (STPs) 19 to 36. The 1968 aerial photograph of the site shows that this area was then in a plowed field, as it is also shown to be on all the USGS maps, so it is unlikely that a modern structure ever stood at this location. There was also no archaeological evidence to suggest the presence of structures. This concentration was also interpreted as being the result of house or barn demolition.

On the south perimeter of the site, the shovel test grid was expanded in order to determine if prehistoric deposits relating to Site 7K-C-396 overlapped with the historic artifact concentrations on Site 7K-C-394. Only a few prehistoric artifacts were recovered.

#### *Test Unit Excavation*

After the completion of the supplemental shovel testing program, unit excavation was carried out to investigate areas of interest, especially areas of high artifact density, and to recover a sample of artifacts for analysis (Figure 9). The test units confirmed the artifact distribution pattern noted in the shovel tests. Artifact counts of more than 500 were recorded for Test Units 9 and 21, in the center of the high-density area.

The stratigraphy in the center of the site was different from that on the periphery. On the periphery the soil consisted essentially of a plowzone over sterile, light yellowish brown silt subsoil. In the center of the site, however, the stratigraphy was more complex. Between the recent plowzone and the subsoil was a B stratum of compact silt loam, brown to olive brown, with some subsoil mottling (Figure 10). Few artifacts were recovered from this stratum, none in most units. This B stratum appeared to be identical to the "feature" noted in the same area by the Phase I investigators. In Test Unit 4, a plow scar was noted in the bottom of this B

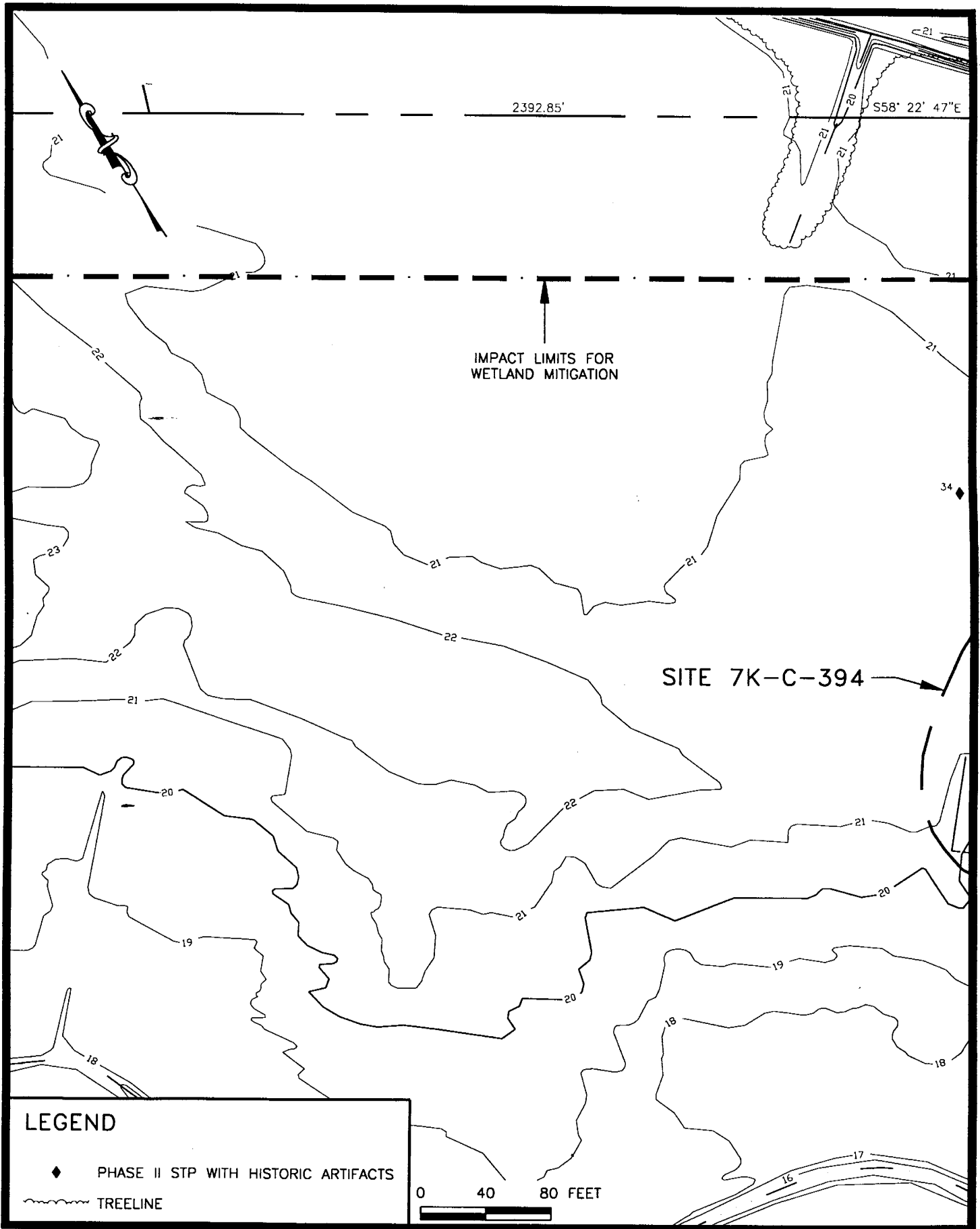
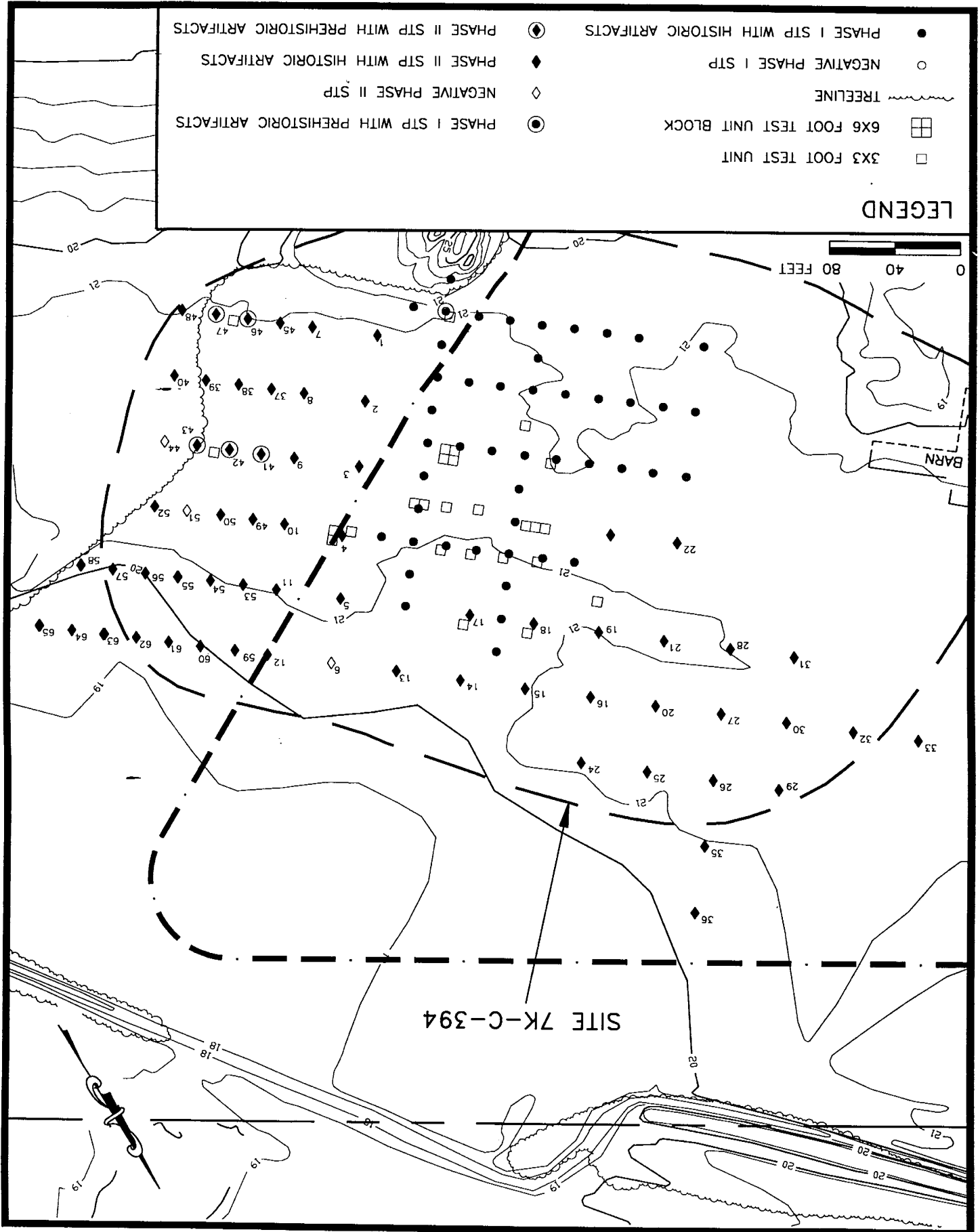


FIGURE 7a: Plan of Site 7K-C-394, Showing Phase II Shovel Testing

FIGURE 7b: Plan of Site 7K-C-394, Showing Phase II Shovel Testing



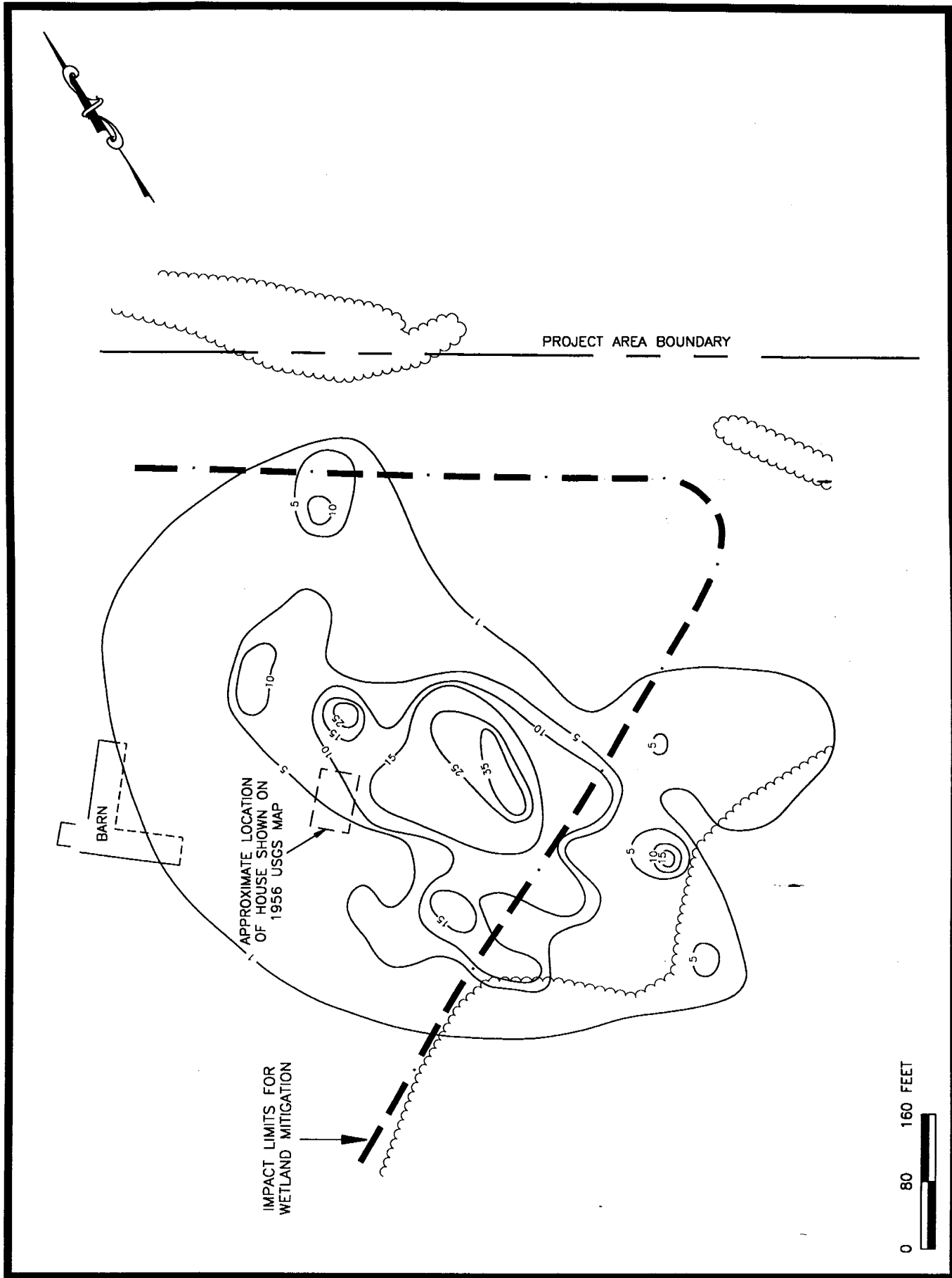


FIGURE 8: Historic Artifact Distribution at Site 7K-C-394, Based on Shovel Test Data

stratum, intruding the subsoil. The B stratum appears to be an older plowzone. The field had certainly been plowed when the house was built in the 1850s. In some parts of the yard, soil built up during the occupation of the house, so that after the house was destroyed the plow did not reach to the bottom of the old plowzone, leaving a remnant stratum. Since this older plowzone predates the main occupation of the site, it contains few artifacts.

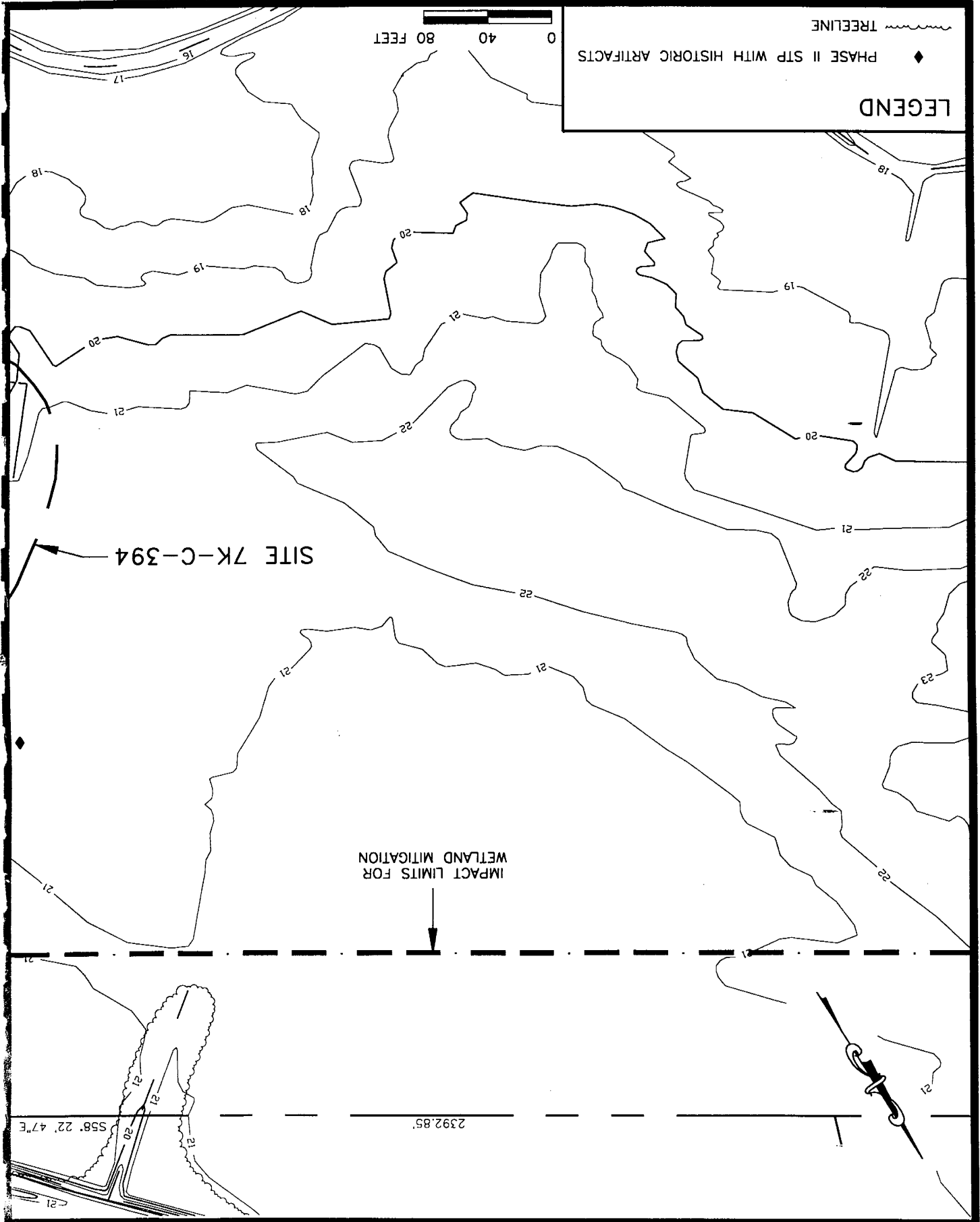
Test Units 24, 25, and 26 were excavated toward the southern end of the site, where shovel tests had detected a thin scatter of prehistoric artifacts. However, only three prehistoric artifacts were recovered from these test units, all from the plowzone. One chert flake and a projectile point resembling the Brewerton side-notched type were recovered from Test Unit 24, and one chert flake was recovered from Test Unit 25. These units did locate large quantities of brick and concrete rubble, more than 200 pieces from Test Unit 24 and more than 20 gallons from Test Unit 25. The large quantities of rubble recovered from these peripheral units is further evidence that structures on the site were demolished with heavy machinery; some of the rubble was then bulldozed into the woods around the edge of the field.

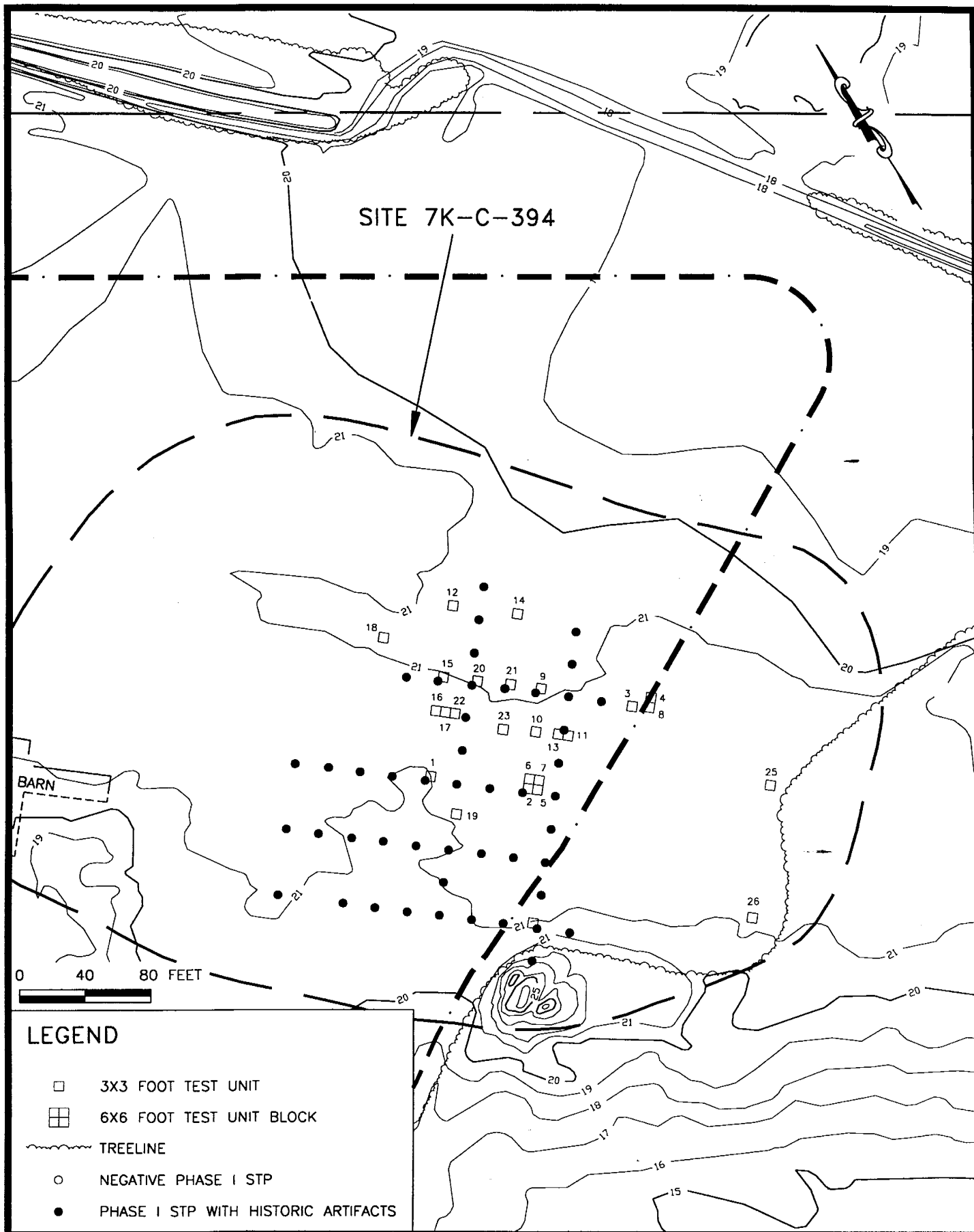
### *Feature Excavations*

Fourteen features were discovered and excavated on the site. Features 10 and 11 were natural. Seven of the features, Features 2, 5, 6, 8, 13, 14, and 15 were postholes with visible post stains. Three further features, Features 3, 4, and 7, were pits similar in size and appearance to these postholes, but without visible post stains; they are also interpreted to be postholes.

Test Units 2, 5, 6, and 7, which formed a 6x6-foot block southwest of the main artifact concentration, located a concentration of five features, all probably postholes (Figures 11 and 12). Feature 2 was the largest, a roughly rectangular pit measuring 2.5x2 feet, with sloping sides and a flat bottom 1.2 feet below the bottom of the plowzone. The fill in Feature 2 and all the other postholes consisted of mixed subsoil and plowzone. A round hole near the center of Feature 2, one foot across, was filled with slumped plowzone, indicating that the soil had been disturbed when the post was removed. Below this disturbance was a true post mold 0.5 feet in diameter (see Figure 12). Feature 3 extended only half a foot into Test Unit 2 and was only partially excavated. The excavated portion closely resembled Feature 2, although no mold was visible. Feature 5 was a rectangular, straight-sided pit, measuring 1x0.75 feet, 1.2 feet in depth, with a distinct post mold 0.4 feet in diameter. Feature 6, which was immediately adjacent to Feature 5 and cut through a portion of Feature 2, was an oblong, straight-sided pit measuring 1.5 by 1.2 feet, 1.5 feet in depth, with a square post mold 0.4 feet across. Feature 7 was a rectangular, straight-sided pit, one foot in depth, resembling the nearby features but without a visible post mold. None of these features yielded many artifacts. All of the postholes were dug with a shovel rather than posthole diggers, which suggests that they date to the nineteenth century.

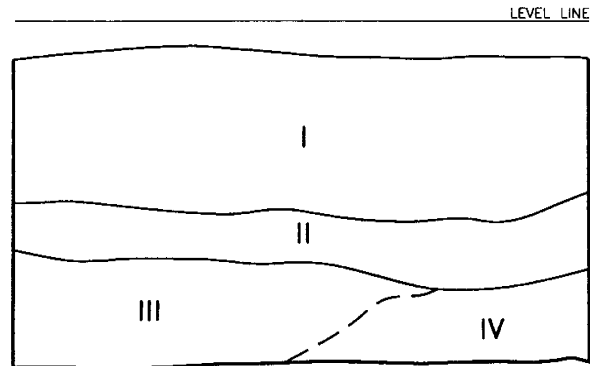
FIGURE 9a: Plan of Site 7K-C-394, Showing Phase II Test Units





**FIGURE 9b: Plan of Site 7K-C-394, Showing Phase II Test Units**

# NORTH WALL PROFILE TEST UNIT 10

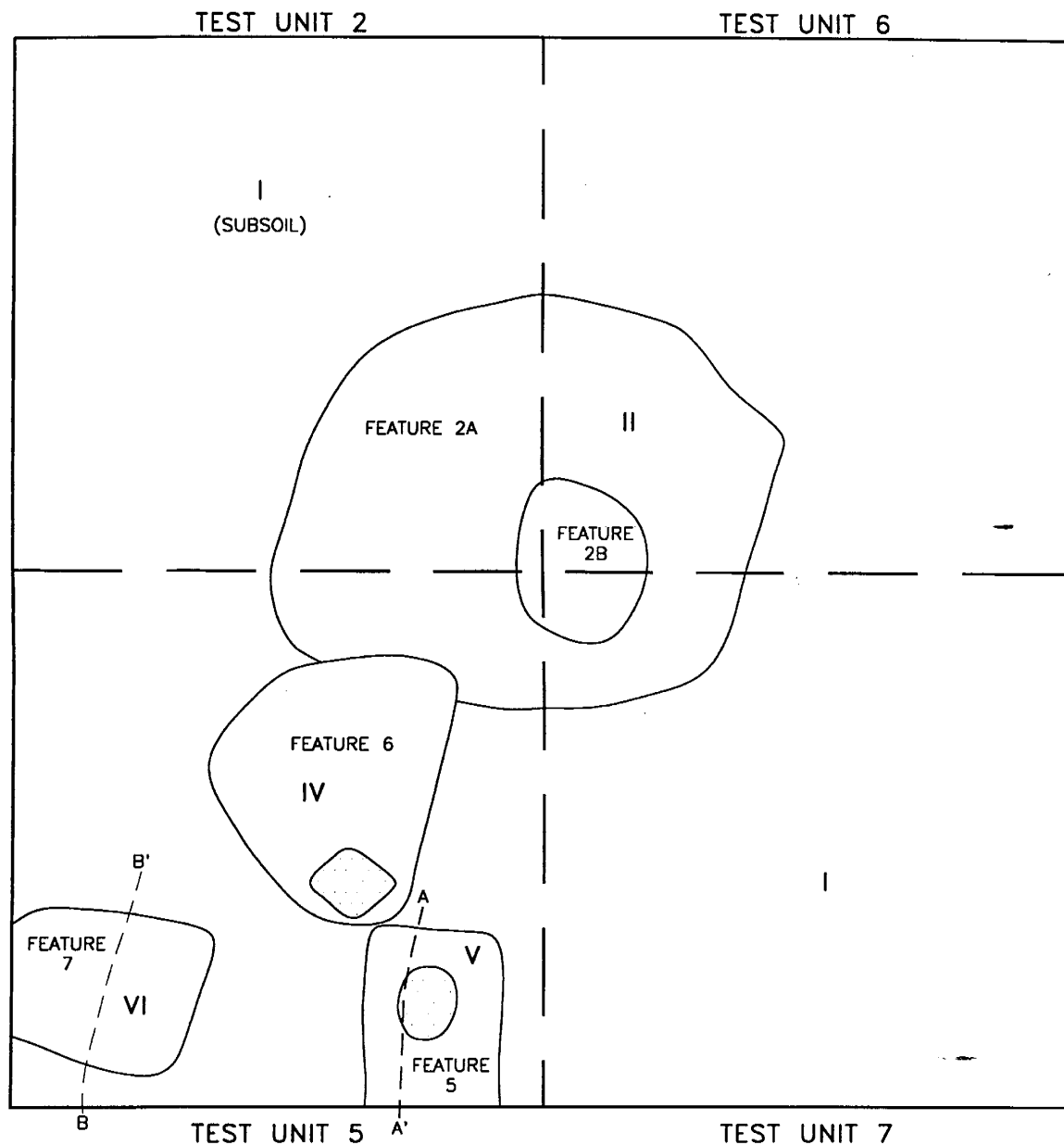


## LEGEND

- I STRATUM A, Ap-HORIZON: 10YR 3/2 VERY DARK GRAYISH BROWN SILTY LOAM
- II STRATUM B, TRUNCATED OLDER Ap-HORIZON: 10YR 5/3 BROWN SILTY LOAM
- III STRATUM C: 2.5Y 5/6 LIGHT OLIVE BROWN LOAMY SILT
- IV STRATUM C: 10YR 5/6 YELLOWISH BROWN LOAMY SILT
- CLEAR TRANSITION
- - GRADUAL TRANSITION

0 1/2 1 FOOT

FIGURE 10: Profile of Test Unit 10, Site 7K-C-394

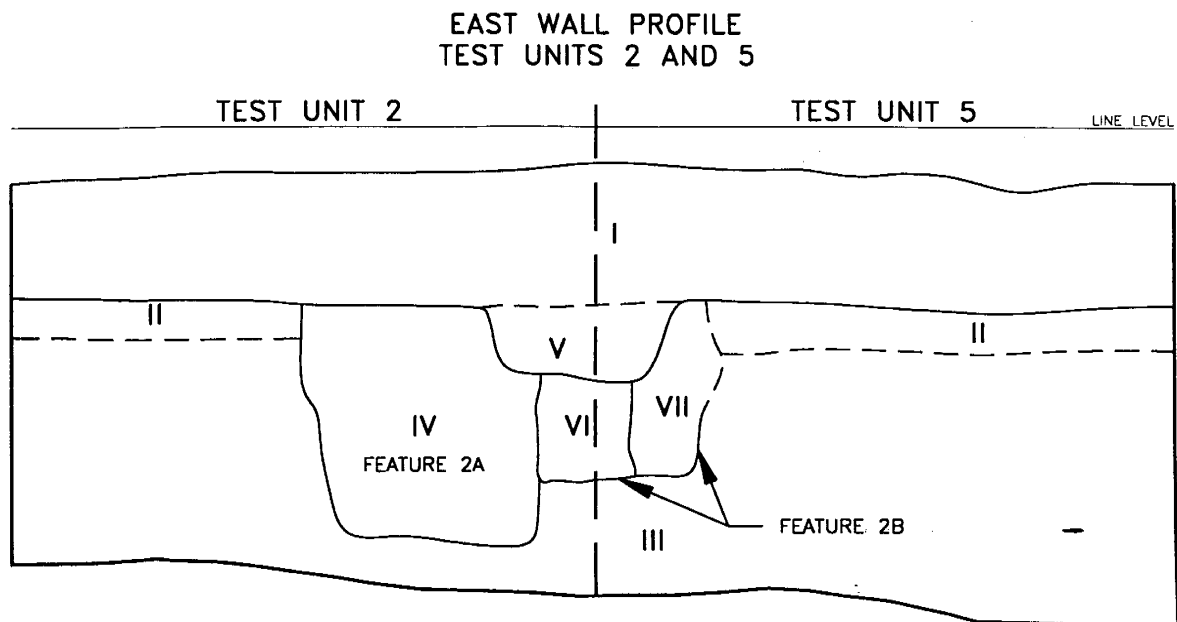


## LEGEND

- I STRATUM B, SUBSOIL: 1.25Y 6/6 BROWN-OLIVE YELLOW SILT LOAM
- II FEATURE 2A: 2.5Y 5/3 LIGHT OLIVE BROWN SILT LOAM (50%) MOTTLED WITH 1.25Y 6/6 BROWN-OLIVE YELLOW SILT LOAM (50%)
- III FEATURE 3: 10YR 5/8 YELLOWISH BROWN LOAM (33%) MOTTLED WITH 1.25Y 6/6 BROWN-OLIVE YELLOW SILT LOAM (34%) AND 2.5Y 5/3 LIGHT OLIVE BROWN SILT LOAM (33%)
- IV FEATURE 6: 10YR 4/1 DARK GRAY CLAY LOAM WITH LARGE CHARCOAL CHUNKS; SQUARE POST WAS A 2.5Y 7/3 PALE YELLOW LOAM (75%) MOTTLED WITH FLECKS OF 10YR 4/1 DARK GRAY CLAY LOAM
- V FEATURE 5: 10YR 7/4 VERY PALE BROWN SILT; ROUND POST WAS A 10YR 3/2 VERY DARK GRAY SANDY LOAM SILT
- VI FEATURE 7: 2.5Y 6/6 LIGHT OLIVE BROWN SILT LOAM
- VII FEATURE 2B: 2.5Y 5/2 GRAYISH BROWN SAND LOAM; ZONE V ON EAST WALL PROFILE OF TEST UNITS 2 AND 5
- 0 1/2 1

0      1/2      1 FOOT

**FIGURE 11: Plan of Test Units 2, 5, 6, and 7, Showing Postholes, Site 7K-C-394**



### LEGEND

- I PLOWZONE, STRATUM A, LEVEL 1: 10YR 4/3 BROWN SAND LOAM
- II OLDER PLOWZONE?, STRATUM A, LEVEL 1: 10YR 6/3 LIGHT YELLOWISH BROWN LOAM (75%) AND 10YR 6/8 BROWNISH YELLOW SAND LOAM (25%)
- III SUBSOIL, STRATUM B, LEVELS 2-4: 10YR 6/6 BROWNISH YELLOW SILT LOAM GRADING BY THE BASE OF EXCAVATION TO A 10YR 5/8 YELLOWISH BROWN LOAMY SAND (75%) MOTTLED WITH A HARD-PACKED 7.5YR 5/8 STRONG BROWN SAND
- IV FEATURE 2A: 10YR 5/3 LIGHT BROWN SILT LOAM (50%) MOTTLED WITH 10YR 6/6 BROWNISH YELLOW SILT LOAM (50%)
- V PLOWZONE SLUMPED INTO FEATURE 2B: 10YR 4/3 BROWN SAND LOAM
- VI FEATURE 2B, POSTMOLD: 2.5Y 4/1 DARK GRAY LOAM (85%) MOTTLED WITH 10YR 6/6 BROWNISH YELLOW SILT LOAM (15%)
- VII FEATURE 2B, POSTHOLE: 10YR 6/6 BROWNISH YELLOW SILT LOAM (40%) MOTTLED WITH 10YR 6/3 LIGHT YELLOWISH BROWN LOAM
- CLEAR TRANSITION
- - GRADUAL TRANSITION

0      1/2      1 FOOT



**FIGURE 12: Profile of Test Units 2 and 5 and Feature 2, Site 7K-C-394**

Feature 4 was a square or rectangular pit located south of the dwelling concentration in STP 4 and Test Units 4 and 8 (Figure 13). The feature measured 2.8 feet in length; since the feature was only partially excavated, its width is not known. It had straight sides and was 1.2 feet in depth. The fill was mottled brown loam and brownish yellow silty sand, similar to that of the postholes found on the site. The feature cut through the remnant older plowzone present in Test Unit 4. Although no post mold was exposed, the feature was probably a posthole.

Feature 8 was a posthole located in Test Units 11 and 13, within the main artifact concentration. The feature was roughly round, 1.3 feet in diameter, with sloping sides and a depth of 0.7 feet (Figure 14). A square post mold 0.4 feet on each side was located near the center. The feature fill was mottled plowzone and subsoil.

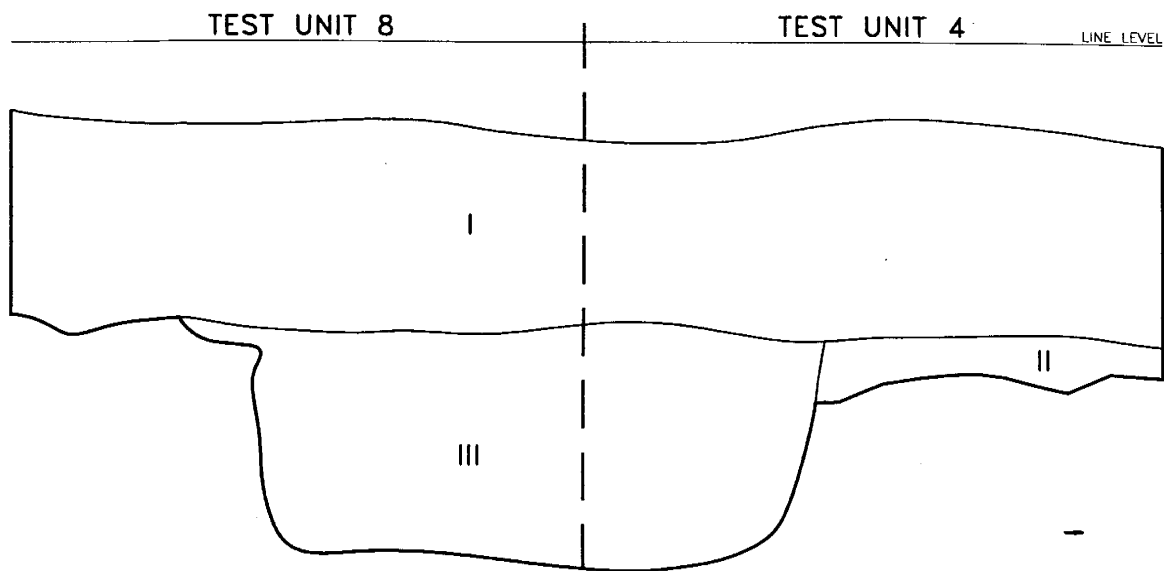
Feature 9 was a small ditch, filled with sand, located in Test Units 16, 17, and 22, just north of the main artifact concentration. The ditch was 2.4 feet in width and 0.7 feet in depth, with sloping sides (Figure 15). The ditch appeared to be a field drain. Feature 9 cuts through Feature 12, an uneven pit at least five feet across and one foot deep. The fill in Feature 12 was mottled and contained quantities of brick fragments and coal and several historic artifacts. The function of the feature is not known, but it appears to have been filled with destruction debris toward the end of the site's occupation.

Feature 13 was a posthole located in Test Unit 23. The feature extended beyond the test unit and was only partially excavated. The feature was 1.1 feet long, at least 0.9 feet wide, and 2 feet deep. The fill was mottled subsoil and plowzone, with a square post mold 0.5 feet across in the center. The feature cuts through the remnant older plowzone. Since this posthole was round and rather small it was probably excavated with posthole diggers, suggesting that it is more recent than the shovel-dug postholes in Units 2, 5, 6, and 7.

Features 14 and 15 were postholes located in Test Unit 20, within the main artifact concentration. Feature 14 was only partially excavated, but with its visible square corner and mottled fill it closely resembles the other postholes on the site. Feature 15 was roughly round, 1 foot across, 1.5 feet deep, with mottled fill and a square post mold 0.4 feet on each side. Feature 15 appeared to have been excavated with posthole diggers.

No patterns were discernible in the distribution of the postholes discovered, and they appeared to have been excavated at different times. Features 13 and 15 appeared to have been excavated with posthole diggers, while the others appeared to have been excavated with shovels. Feature 6 cuts through Feature 2, proving that it is of later date. The concentration of postholes in this area suggests that it was part of a barnyard where fences were used to direct the movements of animals.

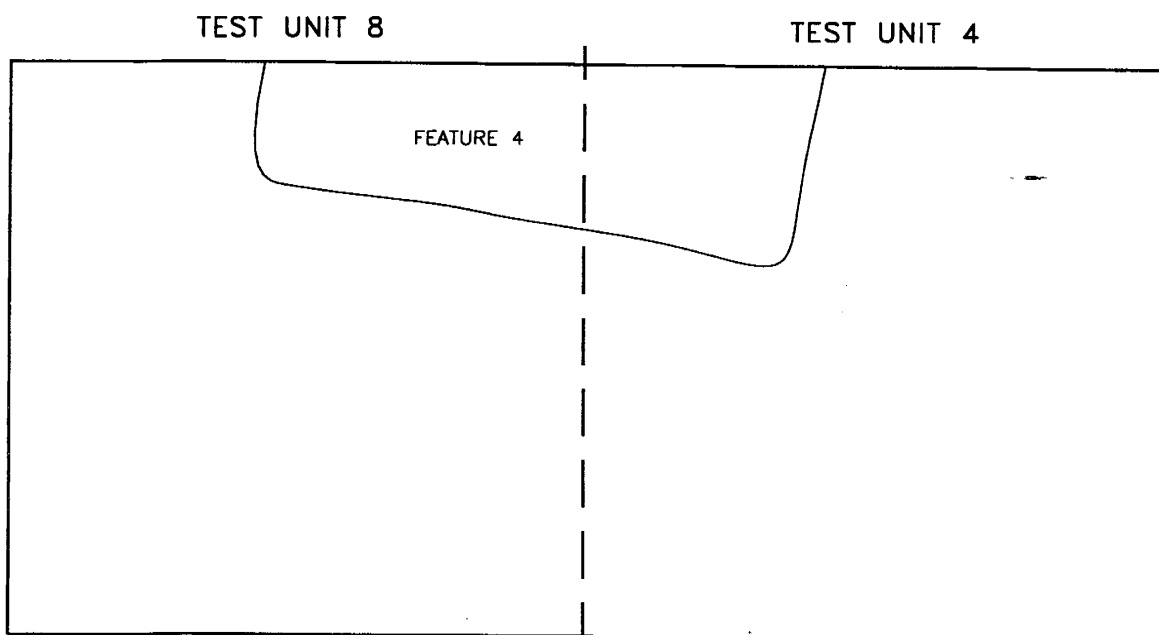
# NORTH WALL PROFILE TEST UNITS 4 AND 8



## LEGEND

- I PLOWZONE: 10YR 4/2 GRAYISH BROWN LOAM GRADING TO 2.5Y 4/4 OLIVE BROWN SILTY LOAM
- II TRUNCATED OLDER  $A_p$ -HORIZON: 2.5Y 5/4 LIGHT OLIVE BROWN COMPACT LOAMY SILT MOTTLED WITH 2.5Y 5/6 LIGHT OLIVE BROWN COMPACT LOAMY SILT AND 10YR 6/8 BROWNISH YELLOW LOAMY SILT
- III FEATURE 4: 2.5Y 4/4 OLIVE BROWN SILTY LOAM MOTTLED WITH 10YR 6/8 BROWNISH YELLOW SILTY SAND AND 10YR 6/2 LIGHT BROWNISH GRAY SILTY LOAM AND 2.5Y 6/6 OLIVE YELLOW SILTY LOAM WITH A SMALL AMOUNT OF CHARCOAL

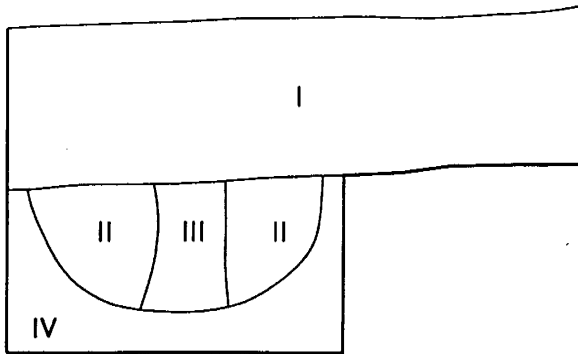
## PLANVIEW



0 1/2 1 FOOT

FIGURE 13: Plan and Profile of Test Units 4 and 8 and Feature 4, Site 7K-C-394

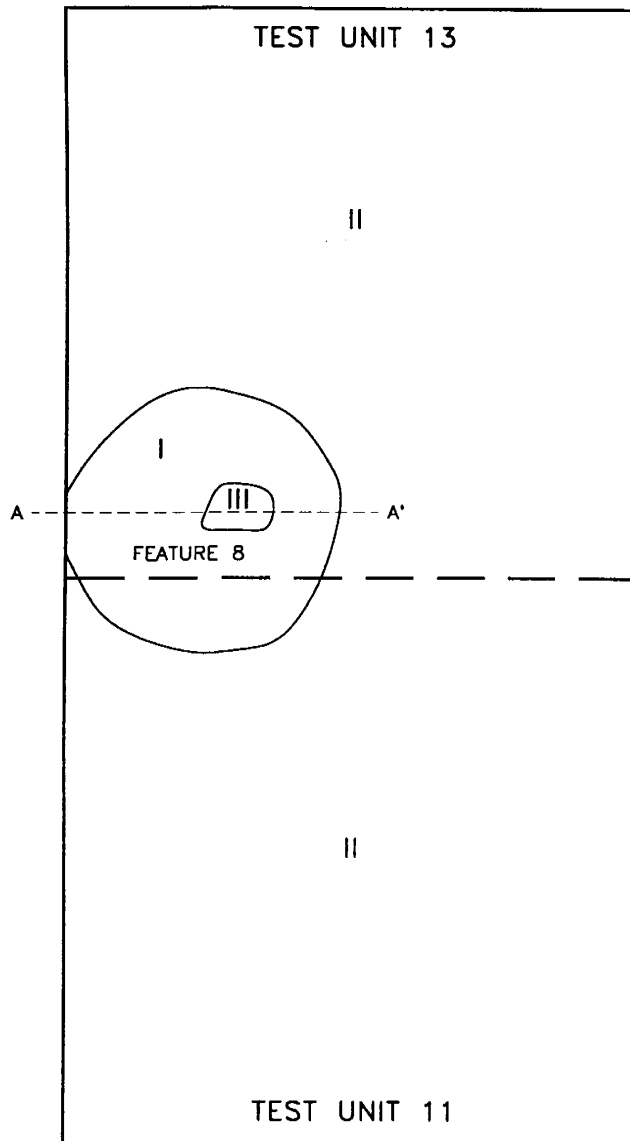
NORTH WALL PROFILE  
TEST UNIT 13



LEGEND

- I PLOWZONE: 10YR 4/3 BROWN LOAM
- II POSTHOLE FILL: 10YR 5/3 LIGHT BROWN CLAY SAND MOTTLED WITH 10YR 6/4 LIGHT YELLOWISH BROWN CLAY LOAM
- III POSTMOLD: 10YR 7/2 LIGHT GRAY ASHY SAND MIXED WITH 10YR 4/2 DARK GRAYISH BROWN SAND AT BASE
- IV SUBSOIL: 10YR 6/4 LIGHT YELLOWISH BROWN COMPACT CLAY SAND

PLANVIEW



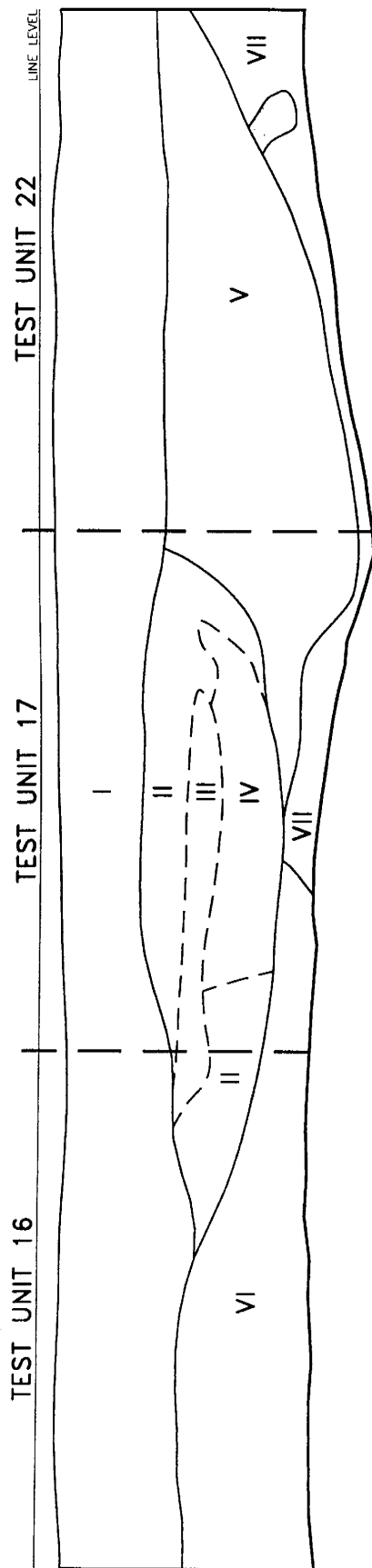
LEGEND

- I 2.5Y LIGHT OLIVE BROWN LIGHTLY MOTTLED WITH 2.5Y 6/4 LIGHT YELLOWISH BROWN CLAY SAND WITH CHARCOAL SPECKING
- II 2.5Y 6/4 LIGHT YELLOWISH BROWN CLAYEY SAND
- III MOTTLED 2.5Y 7/1 AND 7/2 LIGHT GRAY CLAYEY SAND

0 1/2 1 FOOT

FIGURE 14: Plan and Profile of Test Units 11 and 13 and Feature 8, Site 7K-C-394

# EAST WALL PROFILE TEST UNITS 16, 17, AND 22



## LEGEND

- I PLOWZONE: 2.5Y 5/2 GRAYISH BROWN SILTY LOAM
- II FEATURE 9, FIELD DRAIN: 10YR 4/3 BROWN SILTY SAND
- III FEATURE 9: 10YR 4/2 DARK GRAYISH BROWN SANDY LOAM
- IV FEATURE 9: 10YR 6/6 BROWNISH YELLOW SAND MOTTLED WITH 10YR 7/4 VERY PALE BROWN SILTY SAND AND 10YR 6/3 PALE BROWN SILTY SAND
- V FEATURE 12, HISTORIC PIT: 10YR 5/3 BROWN SILTY LOAM MOTTLED WITH 10YR 4/4 DARK YELLOWISH BROWN SILTY LOAM
- VI NATURAL SUBSOIL, TEST UNIT 16, STRATUM B, LEVELS 2-3: 2.5Y 6/6 OLIVE YELLOW COMPACT LOAMY SILT MOTTLED WITH 2.5Y 6/8 OLIVE YELLOW AND 2.5Y 7/4 LIGHT GRAY COMPACT LOAMY SILT
- VII NATURAL SUBSOIL, TEST UNIT 22, STRATUM B, LEVEL 2, BENEATH FEATURE 12: 10YR 5/6 YELLOWISH BROWN SANDY CLAY MOTTLED WITH 7.5YR 5/6 STRONG BROWN SANDY CLAY

RODENT DISTURBANCE

CLEAR TRANSITION

GRADUAL TRANSITION



FIGURE 15: Profile of Test Units 16, 17, and 22, Showing Features 9 and 12, Site 7K-C-394

## C. Artifact Analysis

### *General*

A total of 6,432 historic artifacts were recovered from Site 7K-C-394. Of this total, 6,008 artifacts, or 93 percent, were recovered from the recent plowzone (Stratum A). The remainder were recovered from the older plowzone (Stratum B) and the features. Of the features, only Features 9 and 12, respectively a drainage ditch and an unidentified pit, yielded substantial numbers of artifacts, more than 100 between the two. (Since the stratigraphy of that portion of the site was not understood until after the features had been largely excavated, the exact counts are not reliable.) None of the postholes contained more than a dozen artifacts. The artifacts in Stratum B were not older than those from Stratum A; in fact, all the objects that date to the early phase of the farm's history, including the creamware (1762-1820) and pearlware (1775-1840), were recovered from the plowzone or the postholes.

The artifacts from the Laws Farm are typical of those recovered from domestic sites dating to the second half of the nineteenth and first half of the twentieth centuries, and suggest an occupation from circa 1850 to circa 1950. Pattern analysis of the collection, based on the categories of South (1977), is shown in Table 3. The largest groups within the total are Architectural (3,476, 54%), Kitchen (2,105, 33%), Faunal (199, 3%) and Unidentified (525, 8%). The unidentified objects consisted largely of small bits of rusted or corroded metal, such as one frequently finds around modern farms. The pattern shown in Table 3, with a majority of architectural artifacts, is characteristic of mixed contexts (that is, yard scatter or building debris rather than privies, trash pits, or other discrete disposal areas) on post-Civil War sites (Bedell et al. 1993; LeeDecker et al. 1990:81-90). The falling price of nails and window glass in the nineteenth century, and the introduction of asbestos tile, asphalt shingles, and roofing "tin" in the twentieth, led to greatly increased use of permanent building materials and a consequent skewing of artifact collections toward the architectural element.

Another factor influencing artifact patterns was the spread to ordinary rural residents of attitudes about neatness and proper trash disposal that originated with eighteenth-century elites (Deetz 1977). As people became less tolerant of living amidst yards full of trash, they made greater efforts to move their broken bottles and dishes away from their houses or to dispose of them in buried pits, leaving less lying about for archaeologists to find at house sites. The large quantities of late nineteenth-century glass and ceramics (see below) recovered from the plowzone at the Laws Farm shows that its residents maintained a messy yard until at least the 1890s, but the quantity of twentieth-century material was somewhat smaller. The dearth of identifiable domestic material from after circa 1920 suggests either a reduction in the domestic component of the farm (that is, the house was abandoned for periods or perhaps leased to a single person) or an increased emphasis on trash removal.

TABLE 3  
HISTORIC ARTIFACTS FROM SITE 7K-C-394

Group	Number	Percent	Class	Number
Kitchen	2105	33	Ceramics	559
			Bottles	856
			Other Glassware	52
			Other	638
Architecture	3476	54	Window Glass	949
			Cut Nails	70
			Wire Nails	145
			Unidentified Nails	1902
			Other Construction Hardware	25
			Brick	249
			Roofing and Floor Covering	93
			Other	43
Furnishings	11	<1	Lighting	6
			Furniture Hardware	4
			Other	1
Arms	12	<1	Ammunition	12
Clothing	16	<1	Fasteners	13
			Other	3
Personal	5	<1	Coins	1
			Jewelry	1
			Hygiene	3

TABLE 3 (Continued)  
HISTORIC ARTIFACTS FROM SITE 7K-C-394

Group	Number	Percent	Class	Number
Activities	83	1	Household Related	25
			Recreation	16
			Toys	4
			Hand Tools	1
			Other	36
Faunal	199	3	Bird Bone	5
			Mammal Bone	49
			Oyster Shell	134
			Other Shell	11
Unidentified	525	8		

### *Ceramics*

A total of 583 sherds of historic ceramics were recovered from the Phase II testing at Site 7K-C-394 (Table 4). All were small fragments, and most (95%) were recovered from the plowzone. A majority of the sherds (60%) were whiteware, a refined earthenware used in tablewares and teawares, introduced around 1820. Other refined earthenwares—creamware, pearlware, and ironstone—comprised 9 percent of the collection. Creamware and pearlware are early types, with ranges of 1760-1820 and 1775-1840, respectively, but they were present on Site 7K-C-394 in such small numbers that they have no real chronological implications. The 8 sherds of creamware and 11 of pearlware could easily have come from heirloom dishes, as could the single sherd of comb slipware (1670-1795). However, this thin scatter of eighteenth-century material could date from the earlier phase of the Laws Farm. In that case the early artifacts could represent trash dumping along a fence or at a satellite barn, or they could indicate that the earlier house was not far, perhaps 100 yards, from Site 7K-C-394. Ironstone, sometimes called "White Granite," was invented around 1813 but did not become common in North America until after 1840 and is most common on sites from the 1850-1900 period.

TABLE 4  
HISTORIC CERAMICS FROM SITE 7K-C-394

Type	Number	Percent	Date Range
Creamware	8	1	1762-1820
Pearlware	11	2	1775-1840
Whiteware	347	60	1820-present
Ironstone	33	6	1813-present
Comb Slipware	1	<1	1670-1795
Porcelain (non-Chinese)	11	2	1760-present
Redware	104	18	-- --
Yellowware	4	1	--
Rockingham/Bennington	4	1	1812-1920
Stoneware	40	7	--
Other/Unidentifiable	18	3	--

The second largest constituent of the collection was redware, 104 sherds, or 18 percent of the ceramic assemblage. Most of the redware from the Laws Farm Site was coarse material from utilitarian bowls or jars, but four sherds of a refined, thin-bodied redware were also recovered, one of them a lustre-decorated specimen datable to 1790-1840. Several different types of stoneware were recovered, all utilitarian. Only 6 of the 40 recovered sherds were plain gray stoneware, and the remainder were coated on the interior with Albany (1800-1940) or Bristol (1835-present) slips. Nine sherds were recovered that had Albany slip on the exterior and Bristol slip on the interior, a combination introduced in 1880. Four sherds of yellowware (1827-1940), a ceramic used for bowls and serving dishes, were recovered, as well as four sherds decorated with mottled brown and yellow Rockingham/Bennington glaze (1812-1920).

The refined earthenwares from the Laws Farm were decorated using a wide variety of techniques. The techniques used on the whitewares recovered, which constitute the large majority of specimens, are listed in Table 5. Since some decorative types were more expensive than others, the relative numbers of the different types are sometimes used to estimate the wealth of the occupants of an archaeological site. However, because the Laws Farm had such a long and recent occupation, because the ceramics were almost all recovered from the plowzone and cannot be assigned to any particular occupation, and because the sherds are too fragmentary for minimum vessel count analysis, no such analysis is attempted here.

TABLE 5

## WHITEWARE FROM SITE 7K-C-394—DECORATIVE TECHNIQUES

Decoration	Number	Percent	Date Range
Plain	258	74	1820-present
Shell Edged - Blue	5	1	1820-1900
Other Embossed Rims	13	4	1820-present
Embossed Body	4	1	1820-present
Polychrome Underglaze Handpainted (Early Style)	2	1	1820-1860
Transfer Printed - Blue	15	4	1820-present
Transfer Printed - Black	4	1	1820-present
Transfer Printed - Flowing Colors	3	1	1835-1910
Transfer Printed - Other Colors	2	1	1820-1915
Dipped	10	3	1820-1900
Simple Bands	5	1	1820-present
Sponged	4	1	1820-1940
Cut Stamps	2	1	1880-present
Liquid Gold	1	<1	1880-present
Decal - Overglaze	9	3	1880-present
Decal - Underglaze	1	<1	1897-present
Colored Glaze	6	2	1820-present
Other	3	1	1820-present

*Glass*

A total of 1,537 fragments of glass were recovered from Site 7K-C-394. The collection, described in Table 6, is typical of middle class domestic sites from the twentieth and second half of the nineteenth centuries. The artifacts were largely recovered from the plowzone and were highly fragmentary; the function of 41 percent of the collection could not be identified. Of those

TABLE 6  
GLASS FROM SITE 7K-C-394

Type	Number	Percent	Type	Number	Percent
Bottle (General)	812	53	Lamp Chimney	4	<1
Wine Bottle	13	1	Prism	1	<1
Soda Bottle	1	<1	Tableware (General)	28	2
Bottle Handle	1	<1	Tumbler	24	2
Jar (General)	4	<1	Unidentified	634	41
Glass Liner/Fruit Jar	15	1			

that could be identified, most were bottle glass. Fifteen fragments of Mason jars used for canning fruits and vegetables were recovered, as well as 52 fragments of pressed glass tableware, which was very common in the early twentieth century.

The manufacturing method of most of the glass from the Laws Farm Site could not be determined. Ten pieces of wine bottle glass were identifiable as free-blown, probably dating to the eighteenth or the early nineteenth century. A total of 404 pieces of mold-blown glass—an ancient technique that was very common in the nineteenth century—were recovered, and 148 pieces of machine-made (post-1889) glass.

#### *Prehistoric Artifacts*

A small prehistoric component was present on the Laws Farm Site, mostly south of the main historic concentration, toward Muddy Branch. Eight prehistoric artifacts were recovered, and all but one were chert or jasper debitage. Two of the jasper flakes had remnant cobble cortex. The remaining artifact was a side-notched, jasper projectile point resembling the Brewerton side-notched variety (ca. 4000-2500 BC). The collection is too small for analysis, but resembles that from Site 7K-C-396.

## **VII. ARCHAEOLOGICAL FINDINGS: SITE 7K-C-396**

Site 7K-C-396 is a prehistoric site with two main loci of activity. One of the loci is dated by the presence of Minguannan and Townsend ceramics to the Woodland II period (AD 1000 to 1600). The site is located on a low rise on the north bank of Muddy Branch, both in agricultural fields and adjacent woods.

### **A. Previous Work**

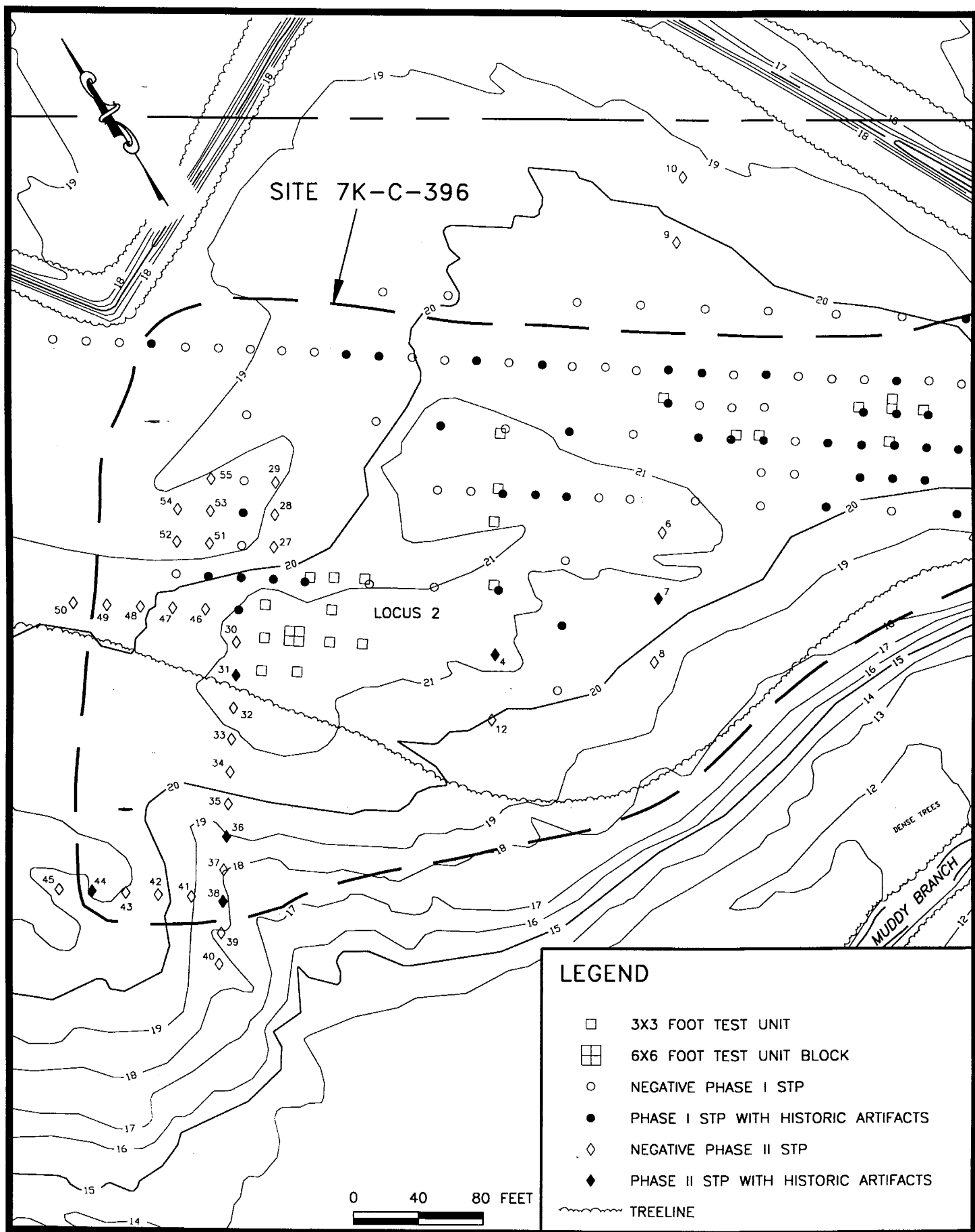
Site 7K-C-396 was located by UDCAR during a Phase I survey of the area. During the survey, 109 shovel test pits were excavated at 20- and 40-foot intervals over the entire area of the low rise. Prehistoric artifacts were recovered from 49 shovel test pits, 45 percent of those within the site boundaries. Artifact density varied from one to three artifacts per shovel test. In seven shovel tests, artifacts were recovered from intact strata beneath the plowzone. One possible prehistoric feature, a concentration of charcoal flecks, was also located within these undisturbed strata. Artifacts recovered during the Phase I survey include a chert stemmed point, jasper and quartz flakes, a rhyolite flake, and grit-tempered ceramics. The ceramics were tentatively identified as Minguannan ware, a Woodland II variety. All the artifacts recovered from below the plowzone were quartz and jasper flakes. On the basis of these discoveries, Phase II significance evaluation of the site was recommended.

### **B. Phase II Excavations**

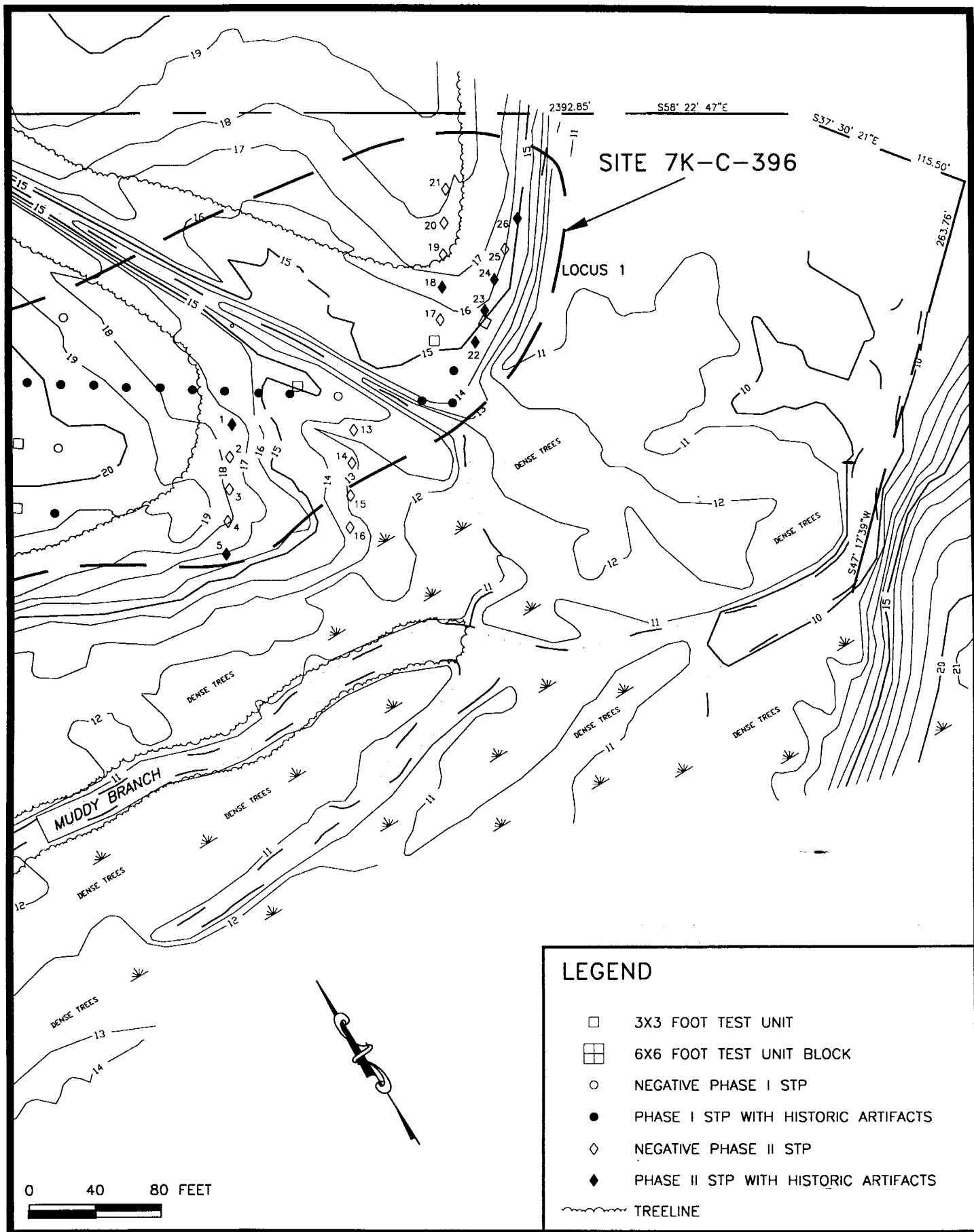
Phase II excavations at Site 7K-C-396 included 51 supplemental shovel tests designed to fully define the limits of the site, particularly at its north end, which is close to Site 7K-C-394, and to examine parts of the site not tested during the Phase I investigation (Figure 16). A total of 31 3x3-foot test units were also excavated on the site, targeting artifact concentrations identified during the Phase I and supplemental Phase II shovel testing (Figure 17). The results of the Phase II investigations revealed two prehistoric loci with artifacts buried below the plowzone. The combination of shovel testing and test units enabled the investigators to determine the limits of Site 7K-C-396 and the extent of the buried loci (Figures 18 and 19).

#### *Locus 1*

Locus 1 is at the southern end of the site on a bench or levee of Muddy Branch. This locus is in the wooded part of the site, at an elevation of about 15 feet above sea level and approximately 5 feet above Muddy Branch. Phase II STPs 1 through 5 and 13 through 26 were excavated in this locus. This portion of the site is crossed by a steep drainage ditch, excavated in historic times, that enters the site from the north and empties into Muddy Branch. Testing was carried out on both sides of the ditch. In this area, Phase I testing revealed a thin concentration



**FIGURE 16a: Plan of Site 7K-C-396, Showing Phase II Shovel Testing**



**FIGURE 16b: Plan of Site 7K-C-396, Showing Phase II Shovel Testing**

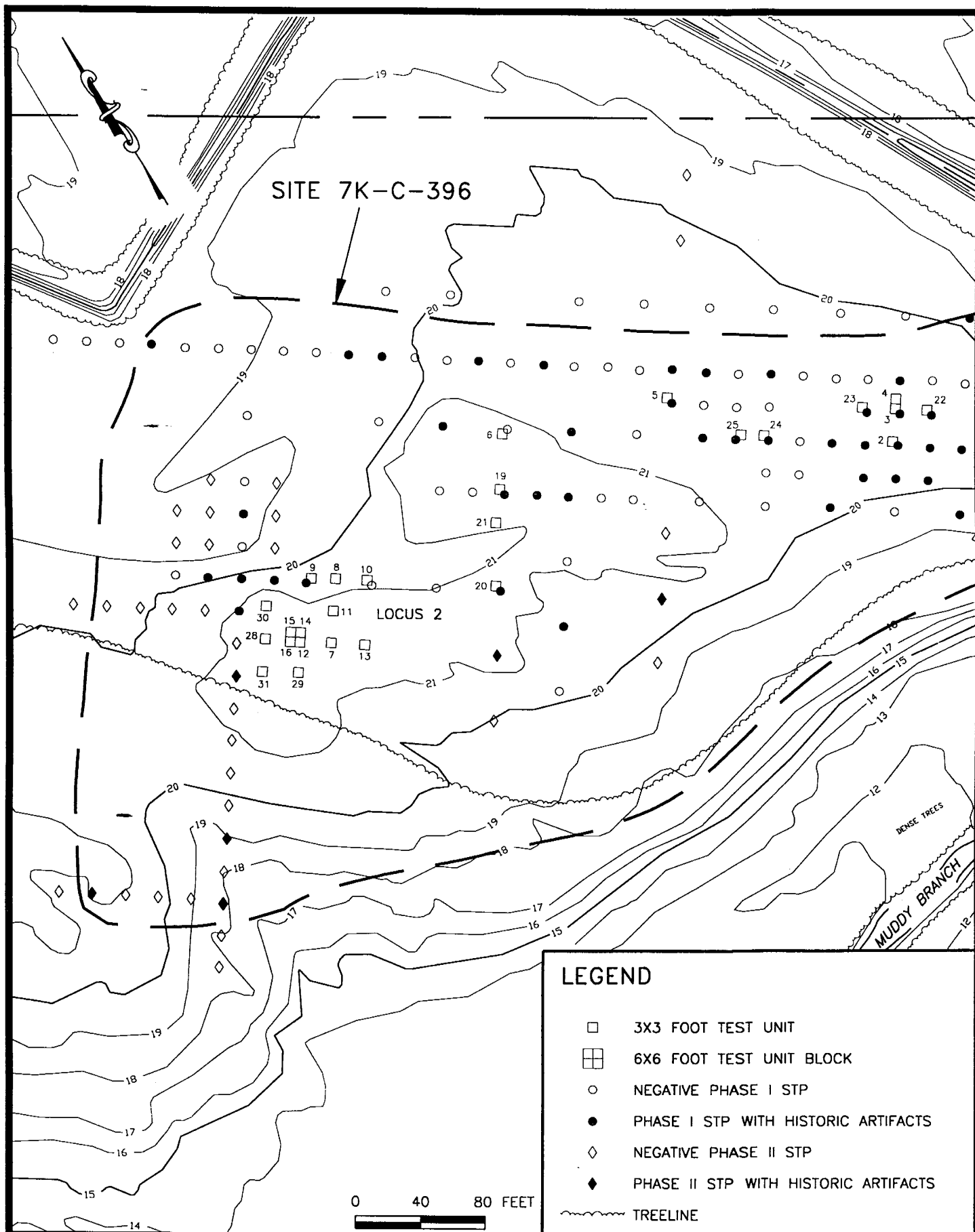


FIGURE 17a: Plan of Site 7K-C-396, Showing Phase II Test Units

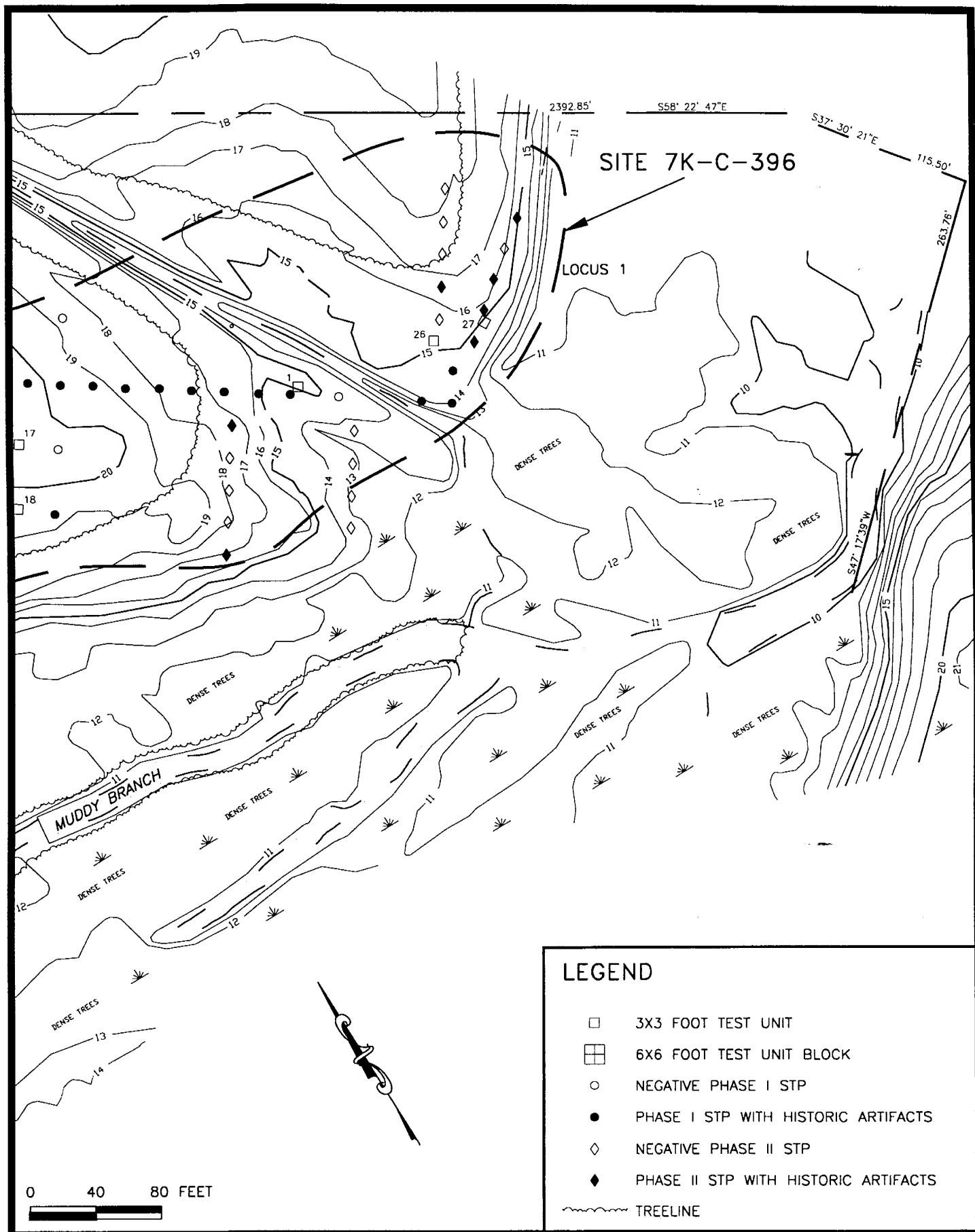


FIGURE 17b: Plan of Site 7K-C-396, Showing Phase II Test Units

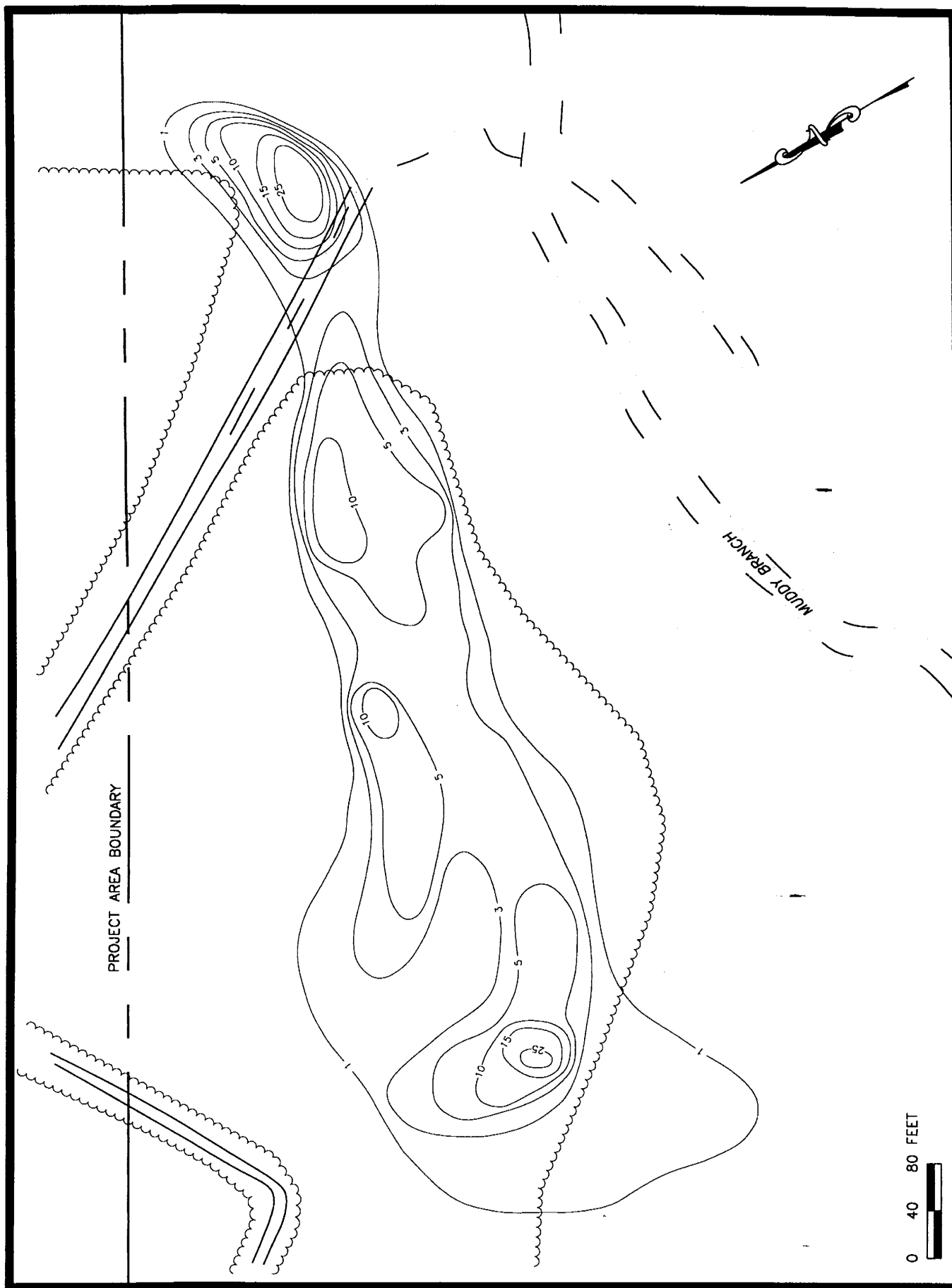


FIGURE 18: Prehistoric Artifact Distribution, Site 7K-C-396, Based on Test Unit Data

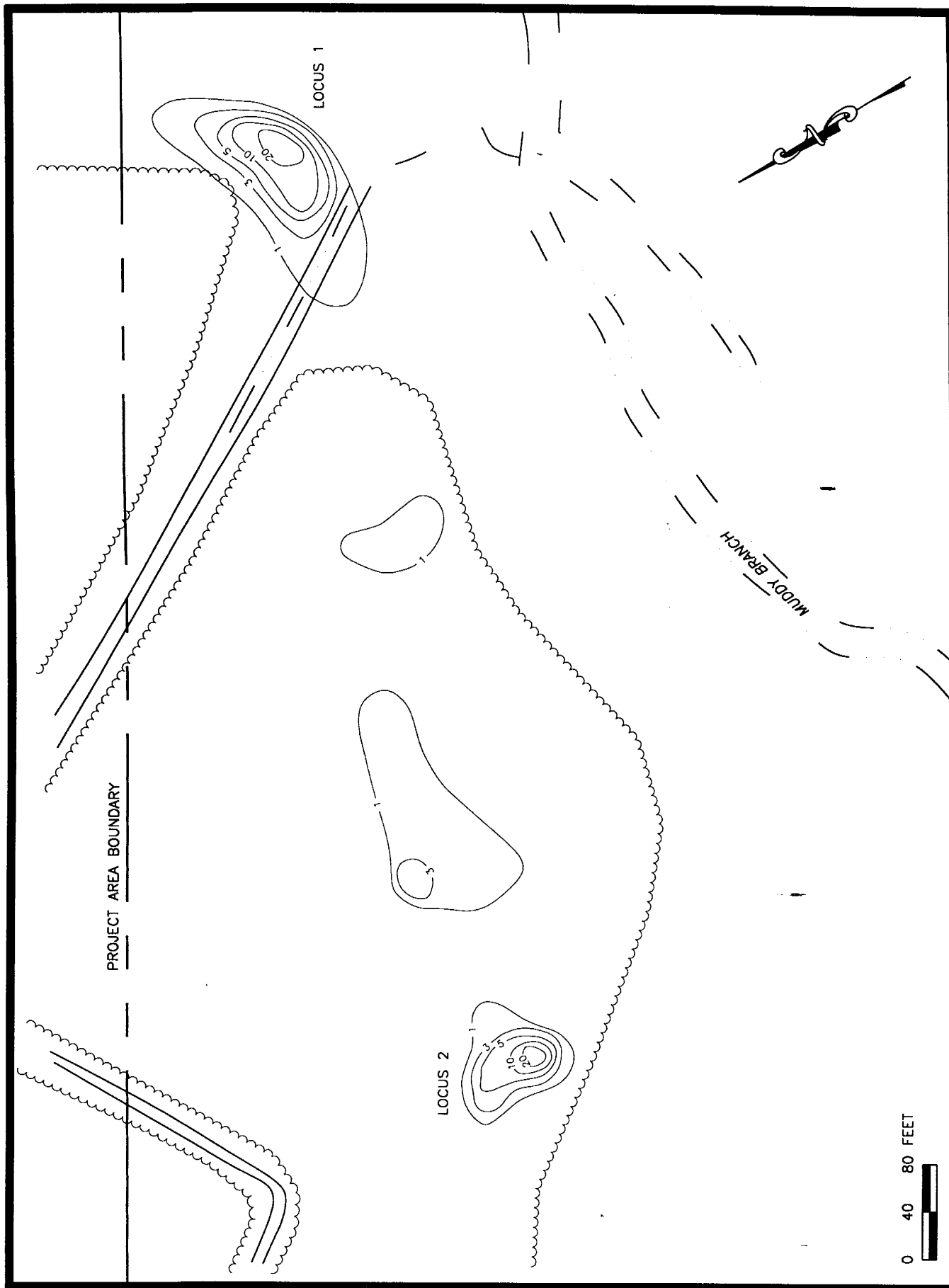
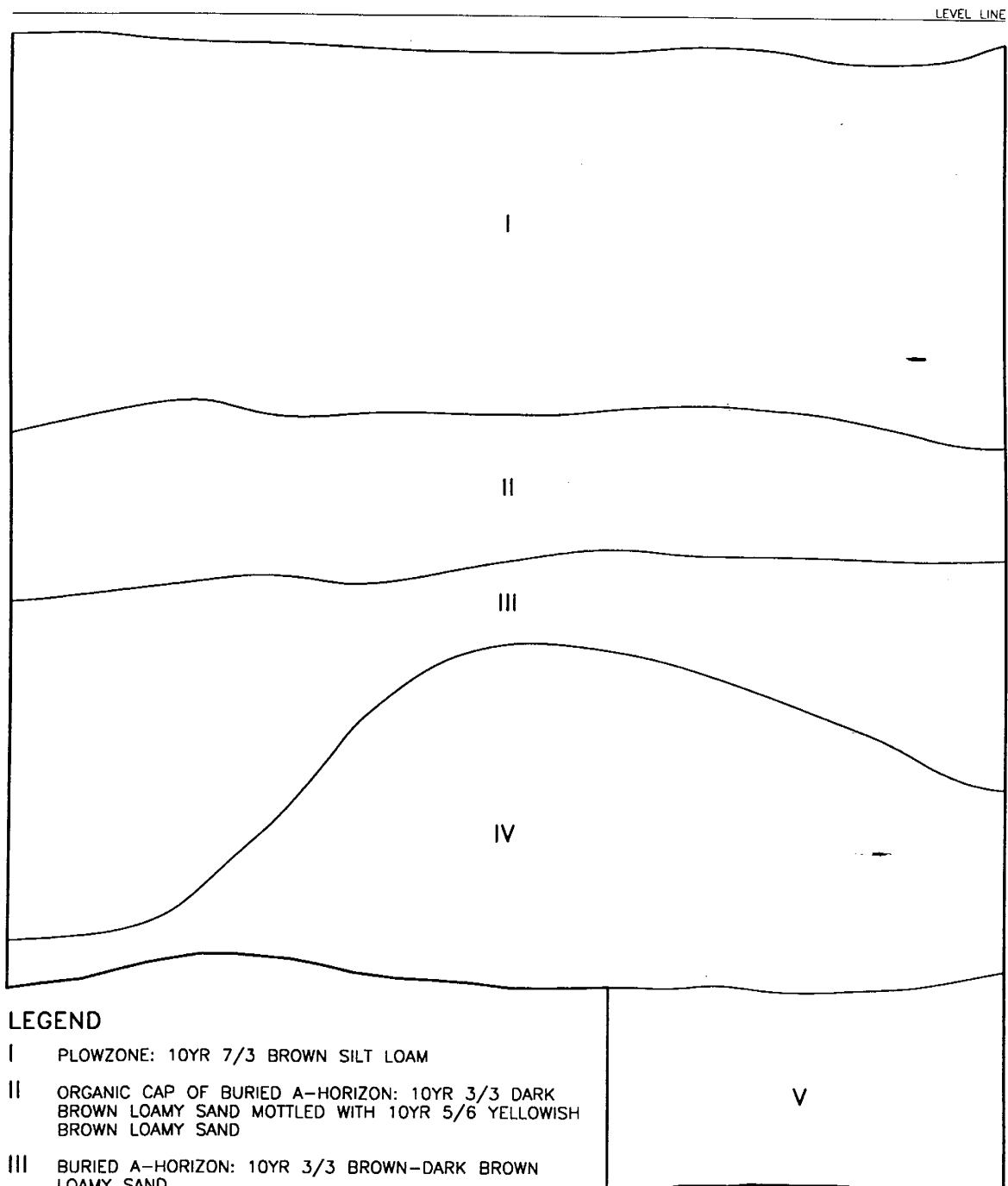


FIGURE 19: Subplowzone Artifact Distribution, Site 7K-C-396, Based on Test Unit Data

# SOUTH WALL PROFILE TEST UNIT 27



## LEGEND

- I PLOWZONE: 10YR 7/3 BROWN SILT LOAM
- II ORGANIC CAP OF BURIED A-HORIZON: 10YR 3/3 DARK BROWN LOAMY SAND MOTTLED WITH 10YR 5/6 YELLOWISH BROWN LOAMY SAND
- III BURIED A-HORIZON: 10YR 3/3 BROWN-DARK BROWN LOAMY SAND
- IV CULTURALLY STERILE: 10YR 5/6 YELLOWISH BROWN LOAMY SAND
- V WATER STAINED SUBSOIL: LENSES OF 2.5Y 6/6 OLIVE YELLOW, 2.5Y 7/4 PALE YELLOW, AND 5YR 5/8 YELLOWISH RED COMPACT SAND

0 1/2 1 FOOT

FIGURE 20: Profile of Test Unit 27, Locus 1

of prehistoric pottery tentatively identified as Minguannan ware. Phase II testing relocated this concentration. The densest part of the concentration was south of the drainage ditch, and density appeared to be increasing toward the east, out of the project area. In tests excavated adjacent to the bank overlooking the swamp along Muddy Branch, the bank that forms the southeastern boundary of the site, a buried A-horizon containing prehistoric pottery and debitage was discovered below the plowzone. This area containing intact, sealed deposits was designated Locus 1.

Three test units were excavated in the vicinity of Locus 1. These excavations produced an average of approximately 28 prehistoric artifacts per unit, significantly higher than in other areas of the site. Test Unit 1 was placed in the woods on the north side of the drainage ditch. The soil in this unit consisted of a thick accumulation of slopewash, with mixed historic and prehistoric artifacts, overlying a sterile subsoil. The low-lying, silty subsoil at the base of the unit profile revealed evidence of leaching, apparently the result of a fluctuating water table. Test Units 26 and 27 were placed on the south side of the drainage ditch, approximately 10 and 30 feet from the bank edge, respectively. In Test Unit 26 the plowzone yielded 6 pieces of debitage and 20 fragmentary pottery sherds. An additional 3 flakes were recovered from the first two arbitrary levels below the plowzone. No buried A-horizon was visible in this unit.

In Test Unit 27, located adjacent to the bank, prehistoric artifacts were recovered from the plowzone and from the first three levels below the plowzone (Figure 20). The most productive level in the unit, an organically rich buried A-horizon lying immediately beneath the plowzone, contained 12 sherds and a single jasper flake. The next undisturbed layer showed evidence of leaching organic material above yellowish brown sand, and contained an additional 10 sherds and 1 fragment of fire-cracked rock. The preserved A-horizon in Test Unit 27 was probably buried by slopewash and slump from higher on the slope.

Sixty-three of the 65 sherds of prehistoric ceramics recovered from 7K-C-396 were from Test Units 26 and 27. The majority of the sherds date to the Woodland II period (AD 1000 to 1500). The amount of debitage recovered, 12 pieces from Test Unit 26 and 8 from Test Unit 27, is higher than average for the site but not as great as the amount recovered from Locus 2. Because of the great difference in the artifacts recovered, Locus 1 either represents an occupation of a different period than that in Locus 2, or an area in which different activities were carried out. Since Locus 2 cannot be dated, no firm conclusion can be reached.

### *Locus 2*

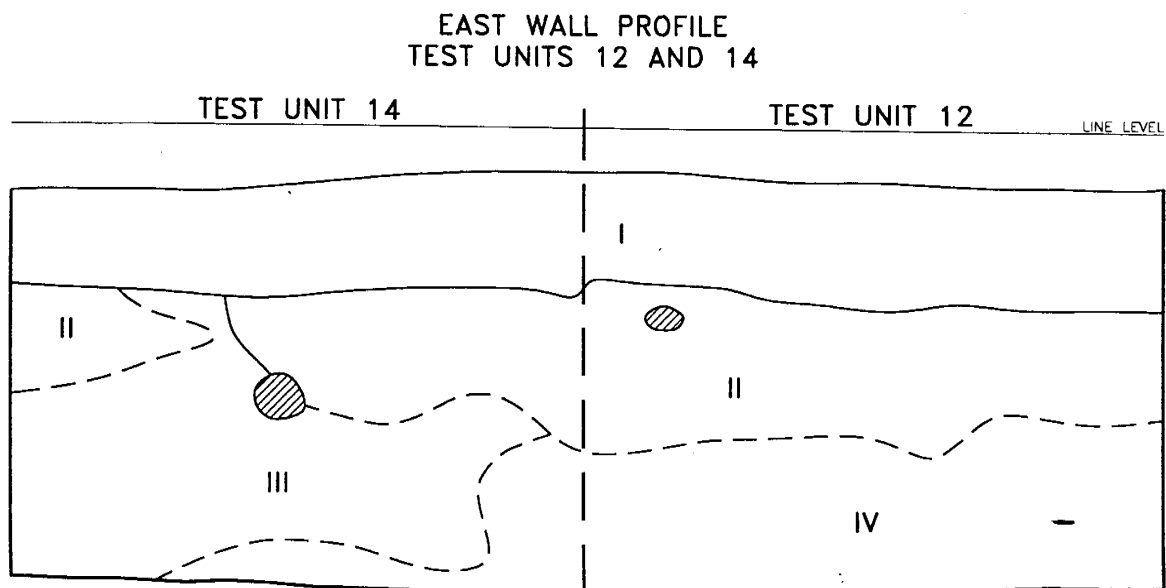
Locus 2 is at the northern end of the site on a well-drained knoll with an elevation of 21 feet at its highest point. In this area, prehistoric artifacts had been recovered from below the plowzone in three adjacent Phase I shovel tests. This concentration was investigated through the excavation of STPs 27 through 55 and Test Units 7 through 12, 14 through 16, and 28 through

31. This locus contained a high percentage of debitage. In the central portion of the locus, more material was recovered from below the plowzone than within it. The cultural stratum, which corresponded approximately to the first two 0.3-foot levels below the plowzone, was a light yellowish brown silt containing little organic material (Figure 21). The area of the buried deposits measures approximately 80x80 feet, although most of the artifacts were recovered from a smaller, high-density area measuring approximately 40x60 feet.


Within the highest-density portion of Locus 2, sampled in Test Units 12, 14, 15, and 16, an average of 42 artifacts per unit were recovered, compared to an average of 4 artifacts per unit in units not within Locus 1 or Locus 2. No diagnostic artifacts were recovered from Locus 2. The absence of ceramics and steatite bowl fragments suggests a pre-ceramic (Archaic or early Woodland I) date, but this is not certain. Locus 2 appears to be a stoneworking area, where there is no reason to assume that ceramic vessels would be used or broken, so the absence of ceramics does not rule out an occupation contemporary with the Woodland II occupation of Locus 1.

Since Locus 2 is situated on locally high ground, not subject to slopewash and too high above Muddy Branch for alluvial deposition, the cultural strata were probably buried by wind-blown soil (Foss et al. 1978; Stewart 1983). As there appears to be a correlation between artifact density and the extent to which artifacts were recovered from below the plowzone, especially in Locus 2, it is possible that the prehistoric occupation of the locus created the localized conditions which led to the burial of the site. For example, if the immediate vicinity of Locus 2 was denuded of vegetation during occupation, this may have enhanced aeolian reworking of the soil within the locus. Research in Delaware has indicated that significant aeolian activity, probably associated with long periods of dry climate, took place at the Pleistocene/Holocene boundary (ca. 8500 BC; Foss et al. 1978), in the middle Holocene (ca. 3000 BC; Curry 1980), and in recent times (ca. AD 1600; Ward and Bachman 1987; Custer et al. 1994). However, if reworking of the soils in Locus 2 was caused by human activity, it need not have been associated with these regional episodes. It is also possible that the inclusion of artifacts in the subsoil of Locus 2 was partly the result of root disturbance and treefalls.


Shovel tests were excavated to define the north edge of Locus 2, and the northwestern boundary of the site. The results of these tests indicated that the limits of both the site and the locus coincide with a gentle downward slope in those directions. To the north, STPs within an east-west swale show soil profiles with evidence of periodic saturation and poor drainage. These tests also demonstrate a marked decrease in artifact counts. To the northeast, prehistoric artifacts were recovered sporadically from the plowzone along the gently sloping ground north of Muddy Branch. Artifact density within these tests also represents a marked decrease from that within Locus 2.



### LEGEND

- I PLOWZONE: 10YR 4/3 BROWN LOAM
- II SUBSOIL WITH PREHISTORIC ARTIFACTS: 10YR 5/4 YELLOWISH BROWN LOAM
- III SUBSOIL, POSSIBLY TREE RELATED: 10YR 7/4 VERY PALE BROWN LOAMY SAND
- IV STERILE SUBSOIL: 7.5YR 5/6 STRONG BROWN SANDY CLAY LOAM
-  ROOT STAINS
- CLEAR TRANSITION
- GRADUAL TRANSITION

0 1/2 1 FOOT



**FIGURE 21: Profile of Test Units 12 and 14, Locus 2**

Tests located in the central portion of the site, between Loci 1 and 2, revealed a relatively low density of prehistoric artifacts and only an occasional artifact from contexts below the plowzone. The subplowzone soil deposits in the central part of the site tended to be redder in color and clayier, and exhibited a greater degree of pedogenic development than soils in the loci with buried artifacts (Figure 22). Units were generally placed in areas where Phase I results indicated the presence of comparatively high artifact counts and/or artifacts from below the plowzone. Artifacts recovered from this area consisted primarily of lithic debitage and a small amount of prehistoric pottery. With the exception of a burned tree stain recorded in Test Units 3 and 4, no significant soil anomalies were observed on any portion of Site 7K-C-396.

### C. Artifact Analysis

#### *General*

A total of 387 prehistoric artifacts were recovered during the Phase II testing of Site 7K-C-396. These artifacts are listed in Table 7. The assemblage is dominated by 294 pieces of lithic debitage and 65 ceramic sherds. The only tools recovered were four small unifacial scrapers, commonly called "thumbnail" scrapers, and two retouched flakes. Two bifaces and three biface fragments were also recovered, but they could all have been unfinished. No formal projectile points were recovered from the site, although a point resembling the Brewerton side-notched type was recovered from Site 7K-C-394 nearby.

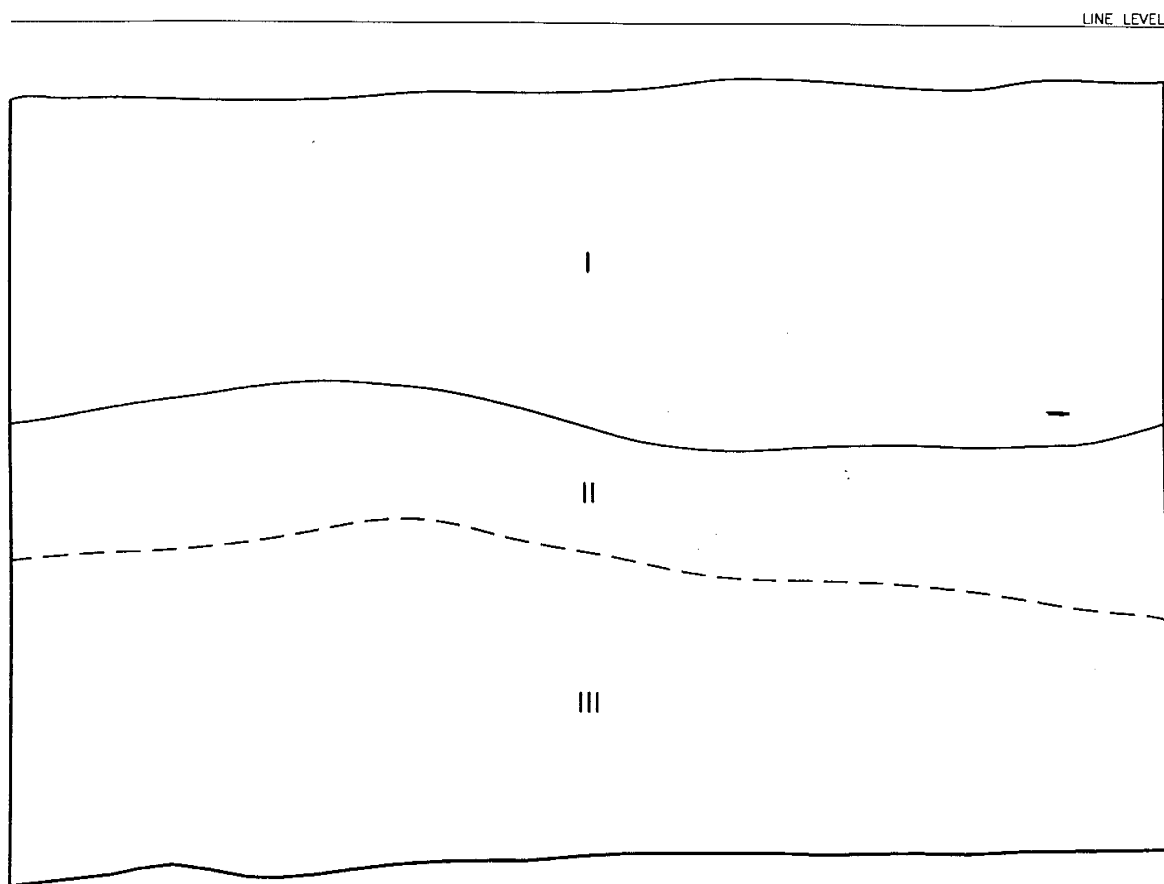
TABLE 7

#### PREHISTORIC ARTIFACTS FROM SITE 7K-C-396

1	Middle Stage Biface	7	Cores
1	Early Stage Biface	294	Lithic Debitage
3	Biface Fragments	65	Ceramics
2	Utilized flakes	10	Fire-Cracked Rock
4	Unifacial ("Thumbnail") Scrapers		

As Figure 17 shows, the artifacts were not evenly distributed across the site. The large majority of the artifacts, 311 (or 81 percent) were recovered from Loci 1 and 2 (Tables 8 and 9). Artifact density per unit was 28 in Locus 1, 16 in Locus 2, and 4 in the remainder of the site. Even within the loci the variation was large. Fifty-five artifacts were recovered from Test Unit 16, but only 21 were recovered from Test Unit 12, which was adjacent to Test Unit 16, and only 3 from Test Unit 29 less than 20 feet away. Such disparity between adjacent units indicates that the artifact patterning has not been badly distorted by plowing, which tends to spread out the distribution and make it more even. The concentrations in Loci 1 and 2 represent actual prehistoric activity areas.

# NORTH WALL PROFILE TEST UNIT 19



## LEGEND

- I PLOWZONE, STRATUM A, LEVEL 1: 10YR 4/3 BROWN LOAM
- II SUBSOIL, STRATUM B, LEVELS 2-5: 10YR 6/6 BROWNISH YELLOW CLAY LOAM
- III SUBSOIL, STRATUM B, LEVELS 3-5: 10YR 4/6 DARK YELLOWISH BROWN CLAY LOAM GRADING TO 7.5YR 4/6 STRONG BROWN VERY CLAYEY LOAM
- CLEAR TRANSITION
- - GRADUAL TRANSITION

0 1/2 1 FOOT

FIGURE 22: Profile of Test Unit 19

TABLE 8  
PREHISTORIC ARTIFACTS FROM LOCUS 1, SITE 7K-C-396

1	Biface Fragment	63	Ceramics
20	Lithic Debitage	1	Fire-Cracked Rock

TABLE 9  
PREHISTORIC ARTIFACTS FROM LOCUS 2, SITE 7K-C-396

1	Middle-Stage Biface	3	Cores
1	Early-Stage Biface	210	Lithic Debitage
1	Biface Fragments	6	Fire-Cracked Rock
4	Unifacial ("Thumbnail") Scrapers		

### *Lithics*

The stone artifacts from Site 7K-C-396 consist largely of debitage. Only a few tools were recovered, none of them diagnostic, as well as 7 cores and 10 pieces of fire-cracked rock. The lithic material on the site, mostly jasper, chert, and quartz, was derived from small cobbles. Such cobbles are readily available in central Delaware, including in Muddy Branch. The evidence suggests that one of the functions of the site, and of Locus 2 in particular, was as a stoneworking area in which locally available cobbles were fashioned into expedient tools (Custer 1987).

The five bifaces recovered from the site are listed in Table 10. None of the bifaces is diagnostic and, in fact, all of them may be unfinished. The material composition of the bifaces does not match that of the debitage; none is jasper, which makes up 46 percent of the debitage, and 2 are argillite, which makes up only 3 percent of the debitage. Although the sample is very small, it seems likely that the recovered bifaces do not represent the end product of the cobble processing that was taking place on the site. The bifaces were recovered from scattered contexts around the site, three from Locus 2. Although the bifaces are described as early or middle stage, this characterization does not mean that they were still undergoing manufacture or had not been used as tools. Blood residue and microwear analysis of early- and middle-stage bifaces from sites in northern Virginia (Petraglia et al. 1994) and the Maryland coastal plain (LBA 1991) showed that some of these items were employed as tools. It seems that only certain tasks required finished projectile points, and for others a rough biface was an acceptable tool. The presence of early- and middle-stage bifaces at Site 7K-C-396 does not indicate that biface manufacture was being carried out on the site.

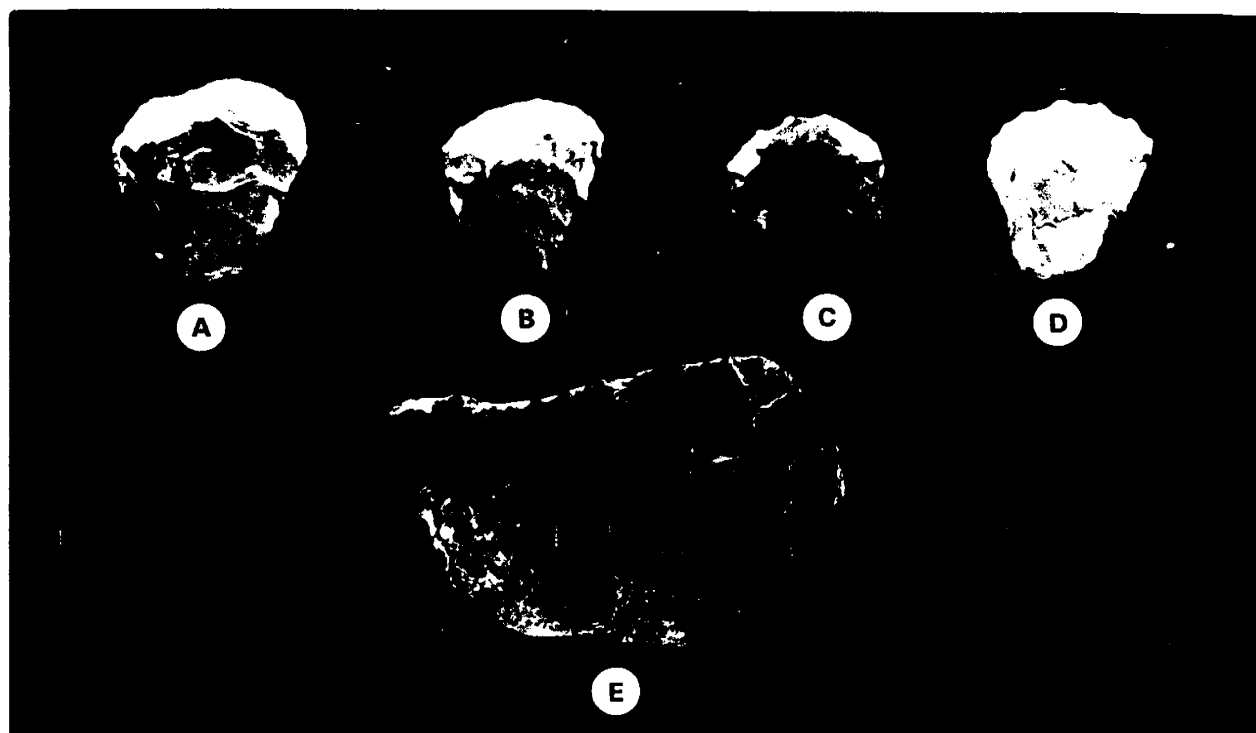
TABLE 10  
BIFACES FROM SITE 7K-C-396

Description	Material	Context	Weight
Indeterminate Biface Fragment	Argillite	Test Unit 1 Stratum B, Level 2	3.7 g
Indeterminate Biface Fragment	Chert	Test Unit 15 Stratum A	0.1 g
Early-Stage Biface	Chert	Test Unit 16 Stratum B, Level 3	5.3 g
Indeterminate Biface Fragment	Quartz	Test Unit 20 Stratum A	13.2 g
Middle-Stage Biface	Argillite	Test Unit 29 Stratum A	7.9 g

The six unifaces recovered from the site are listed in Table 11. The unifaces are all chert or jasper, the two most common stones in the debitage. Four of the unifaces, all recovered from Locus 2, are formal tools, small endscrapers of a type commonly known as "thumbnail" scrapers (Plates 1 and 2). The production of these scrapers was probably one of the activities carried out in Locus 2. Such scrapers could have been used in many different activities, including scraping hides and processing plant foods. The other two unifaces are retouched flakes, one fashioned from a cortical flake 5 cm long.

TABLE 11  
UNIFACES FROM SITE 7K-C-396

Description	Material	Context	Weight
Endscraper	Jasper	Test Unit 12, Stratum B, Level 2	2.4 g
Endscraper	Jasper	Test Unit 14, Stratum B, Level 2	3.6 g
Endscraper	Chert	Test Unit 15, Stratum B, Level 2	2.2 g
Retouched Flake	Chert	Test Unit 24, Stratum A	1.2 g
Endscraper	Jasper	Test Unit 28, Stratum A	2.3 g
Retouched Cortical Flake	Chert	Surface	31.1 g



**PLATE 1: Small "Thumbnail" Scrapers and Retouched Flake from Site 7K-C-396**

- A** Endscraper, Jasper (Cat. #32)
- B** Endscraper, Jasper (Cat. #26)
- C** Endscraper, Chert (Cat. #37)
- D** Endscraper, Jasper (Cat. #74)
- E** Retouched Flake, Chert (Cat. #112)

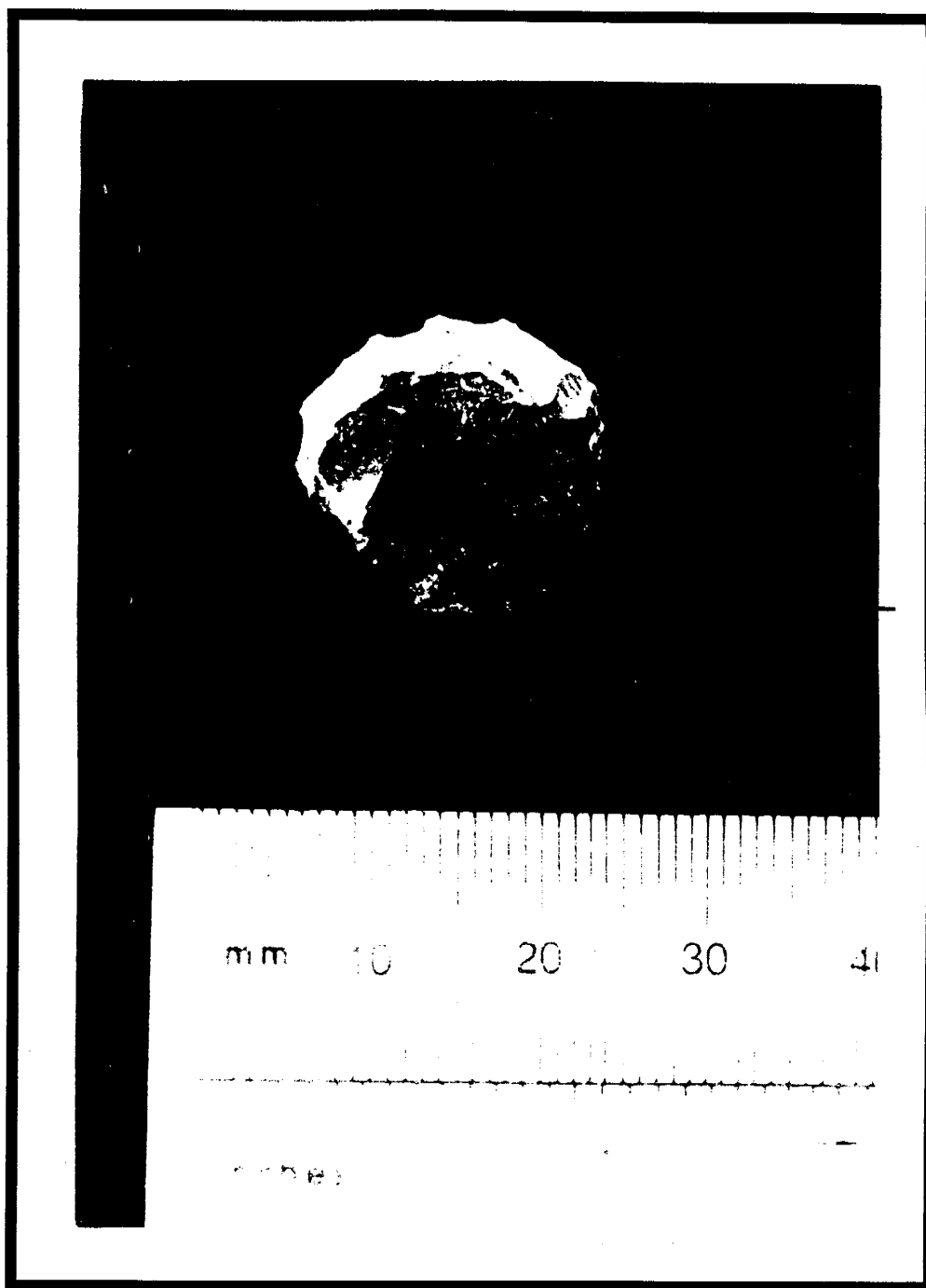


PLATE 2: Detail of "Thumbnail" Scraper from Site 7K-C-396 (Cat. #37)

The cores recovered from Site 7K-C-396 are listed in Table 12. Both bipolar and freehand cores were recovered, showing that both of these technologies were in use on the site. One of the cores was recovered from an intact stratum within Locus 1, indicating that cobble processing did take place in this part of the site. The cores were all quite small, from 0.7 to 14.8 grams, with a mean of 5.4 grams, showing that rather small cobbles were employed in the technology used on the site.

TABLE 12  
CORES FROM SITE 7K-C-396

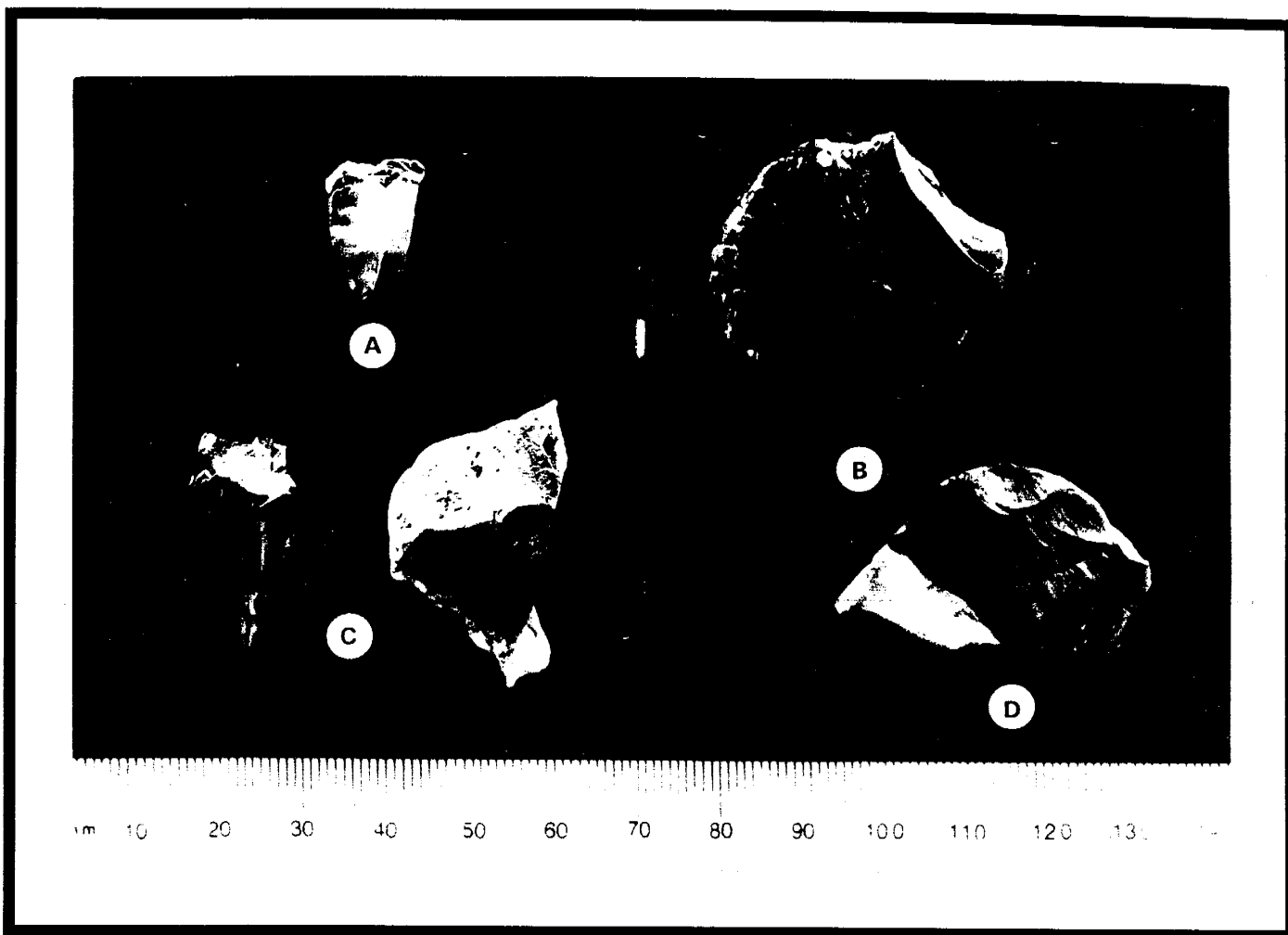
Description	Material	Context	Weight
Bipolar Core	Jasper	Shovel Test Pit 11 Stratum A	0.7 g
Bipolar Core	Quartz	Test Unit 9 Stratum A	1.1 g
Bipolar Core	Chert	Test Unit 9 Stratum A	2.1 g
Bipolar Core	Chalcedony	Test Unit 20 Stratum B, Level 2	0.7 g
Freehand Core	Quartz	Test Unit 25 Stratum B, Level 2	7.6 g
Freehand Core	Jasper	Test Unit 27 Stratum D	13.1 g
Freehand Core	Chert	Test Unit 30 Stratum A	14.8 g

The largest category of artifacts recovered from Site 7K-C-396 was lithic debitage, with 294 pieces (Table 13). A large portion of the debitage, 109 out of 294 pieces, or 37 percent, had remnant cobble cortex. Cortex was noted on specimens of every type of stone in use at the site, including rhyolite and argillite, indicating that those stones were also derived from cobbles. The debitage consisted largely of jasper (135 pieces, 46%), chert (69 pieces, 23%) and quartz (60 pieces, 20%). The remainder of the assemblage consisted of rhyolite (14 pieces, 5%), argillite (8 pieces, 3%), quartzite (6 pieces, 2%) and two pieces of unidentified stone.

TABLE 13  
LITHIC DEBITAGE FROM SITE 7K-C-396

Description	Jasper	Chert	Quartz	Rhyolite	Argillite	Quartzite	Other
Decortication Flake	15	3	2	1		1	
Early Reduction Flake (w/cortex)	24	6	6	1		1	
Early Reduction Flake	28	14	10	3	2		1
Biface Reduction Flake	14	7	3	2			—
Flake Fragment	24	26	15	2	5	2	1
Flake Fragment (w/cortex)	16	3	1	2	1		
Shatter	5	5	14	1		1	
Shatter (w/cortex)	9	5	9	2		1	

Site 7K-C-396, and Locus 2 in particular, appears to have been a cobble-processing station (Plate 3). Cobbles and large pebbles were collected from bars in the stream and worked in at least two ways, by bipolar and freehand techniques (Stewart 1987). It seems unlikely that the cobbles were being processed into projectile points or other carefully finished tools. Only 26 bifacial reduction flakes were recovered, less than 9 percent of the total debitage. Although the use of ¼-inch screens limits the recovery of small thinning flakes, sites where projectile points were being produced usually produce far more than were recovered from 7K-C-396, and more early- and middle-stage bifaces (Ebright 1992; LBA 1991). It also seems unlikely that 7K-C-396 was the site of quarrying activity. The cobbles were not large, and the stone was of indifferent quality; such material is widely available in Delaware, and there was no need for prehistoric people to quarry such stone at 7K-C-396 for transport elsewhere. Also, no "turtle bifaces" or other quarry blanks were recovered during testing. Similar processing stations, based on local cobbles, are known from elsewhere in Delaware (Custer 1987).



**PLATE 3: Evidence of Cobble Processing, Site 7K-C-396**

- A** Bipolar Core, Chert (Cat. #22)
- B** Freehand Core, Chert (Cat. #78)
- C** Block Shatter, Jasper (Cat. #47, 33)
- D** Decortification Flake (Cat. #98)

The evidence suggests that the stoneworking carried out at 7K-C-396 was directed toward the production of expedient tools for use in food-gathering activities that were the site's main purpose. People came to Muddy Branch to fish, hunt, or gather plants for food or basketry, and they used the local cobbles to make the flake tools and small scrapers they needed for this work (Flenniken 1981). The cobble tool industry at 7K-C-396 resembles the one studied by Riley, Watson, and Custer (1994) at Site 7K-C-360. At 7K-C-360, an Archaic and Woodland I site located only a mile away from 7K-C-396, local cobbles were processed into flake tools and small scrapers, but finished projectile points were not produced. Such an industry could have been carried out at any time from the beginning of the Archaic period to European contact.

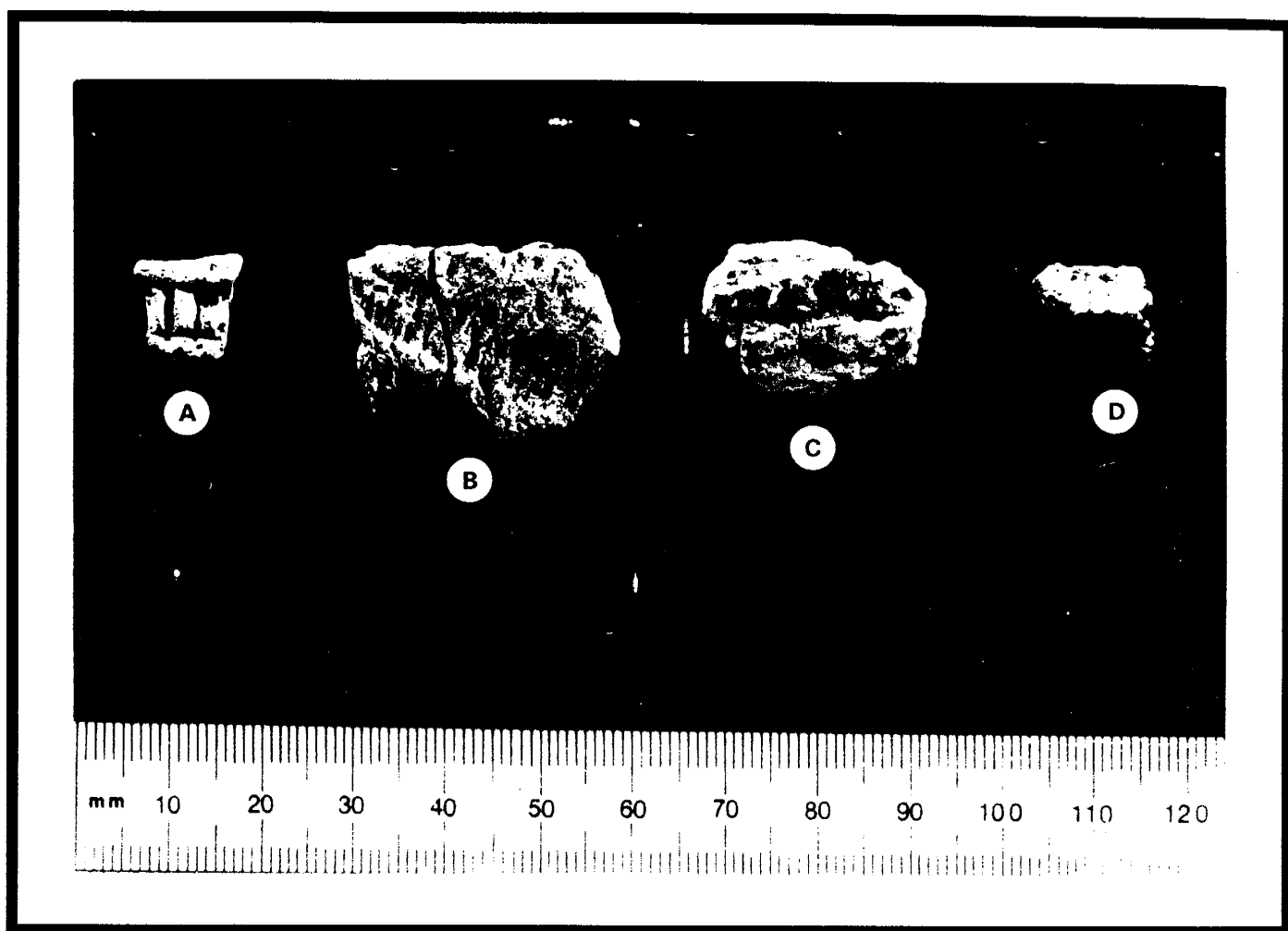
### *Ceramics*

Sixty-five sherds of prehistoric ceramics were recovered from Site 7K-C-396, all but two from Test Units 26 and 27 in Locus 1 (Plate 4). The sherds are listed in Table 14. The majority of the sherds are probably of two Woodland II varieties, quartz-tempered Minguannan and shell-tempered Townsend/Rappahannock. These later wares are distinguished from earlier varieties with the same tempers and range of surface treatments (Wolfe Neck and Mockley) by being generally thinner and more highly fired (Custer 1984; Egloff and Potter 1982; Griffith 1982). Minguannan ware, defined by Custer (1984), is very similar to ceramics called Potomac Creek in the Chesapeake region. Sherds were also recovered that fit into two earlier categories. One sherd of Coulbourn ware, a variety tempered with clay nodules and dating to 400 BC to AD 200, was recovered. Two thick sherds tempered with quartz and mica were recovered, probably Hell Island ware, dated to AD 600 to 900 (Thomas 1966). One sherd was recovered with a large chunk of rhyolite in the paste. Use of this technique is very rare in Delaware, where rhyolite is not common, but it is well known from the Clemson Island cultures of the Upper Delaware and Susquehanna valleys. Sherds identified as Clemson Island ware have been recovered from the Leipsic Site (Custer et al. 1994), only a few miles north of 7K-C-396, so there is some precedent for ceramic connections between central Delaware and central Pennsylvania. None of the sherds recovered was large enough to speculate on the dimensions or shape of the vessels, and no rim sherds were found. Several sherds with coarse sand temper were recovered, but they were all too small and too heavily eroded to be assigned to a ware type.

The majority of the sherds recovered were too worn to speculate on the surface treatment of the vessels. One sherd of Townsend/Rappahannock ware was recovered that is incised with a herringbone pattern. According to Griffith (1977), this design element was most common in the early Woodland II period, circa AD 1000 to 1200. The other sherds with identifiable surface treatments were either smooth or cordmarked, both very common techniques used over very long time periods.

TABLE 14  
PREHISTORIC CERAMICS FROM SITE 7K-C-396

Number	Temper	Surface Treatment	Ware Type
5	Quartz	Cordmarked	Minguannan
7	Quartz	Plain/Smoothed	Minguannan
26	Quartz	Indeterminate	Minguannan
1	Quartz and Rhyolite	Cordmarked	
1	Shell	Incised	Rappahannock Incised
3	Shell	Plain/Smooth	Rappahannock
3	Shell	Cordmarked	Townsend
4	Shell	Indeterminate	Townsend
1	Clay	Indeterminate	Coulbourn
2	Quartz and Mica	Cordmarked	Hell Island
7	Coarse Sand	Indeterminate	
1	Quartz and Sand	Indeterminate	
1	Quartz and Shell	Indeterminate	
3	Quartz, Sand, and Shell	Cordmarked	



**PLATE 4: Prehistoric Ceramics, Site 7K-C-396**

- A** Rappahannock Incised Sherd (Cat. #71)
- B** Townsend Cord-marked Sherd (Cat. #70)
- C** Minguannan Cord-marked Sherd (Cat. #80)
- D** Hell Island Cord-marked Sherd (Cat. #71)

## B. Site 7K-C-396

Site 7K-C-396 is a prehistoric site with two major loci of activity. Buried cultural deposits are present in both loci. In Locus 1, an intact A-horizon has been buried under slopewash. This buried soil contains a ceramic concentration dating to the Woodland II period, probably representing a gathering camp or procurement station used by the prehistoric inhabitants while they gathered and hunted in the wetlands along Muddy Branch. In Locus 2, lithic debitage derived from the processing of local cobbles into flake tools and small scrapers has been buried by windborne soil or become incorporated into the subsoil by bioturbation or aeolian reworking. The area between the two loci contained artifacts within and below the plowzone, but in substantially lower quantities. Both Loci of Site 7K-C-396 probably represent what Custer (1984, 1994) calls procurement stations, places where prehistoric peoples camped while gathering food in the adjacent wetlands.

The intact A-horizon in Locus 1 dates to the Woodland II or Late Woodland period (AD 1000 to 1600). The few anomalous potsherds, representing types diagnostic of earlier periods, are not sufficient to indicate substantial use of the site before AD 1000. The A-horizon contains substantial quantities of pottery, as well as organic material. The soil has no doubt been disturbed by bioturbation and land clearing but retains substantial integrity. Larger potsherds and even reconstructible vessels are likely to be present in such intact soils, and organic remains such as charred seeds may be present. This intact deposit represents an excellent opportunity to examine the food-gathering and processing activities of one group of prehistoric people.

No diagnostic artifacts were recovered from Locus 2. Both within and below the plowzone, the artifacts in the locus consisted of small endscrapers and debitage derived from the processing of local cobbles. The subplowzone deposits in Locus 2 consist of yellowish brown silt probably deposited through aeolian activity. The subplowzone artifacts were buried by blowing soil, or became incorporated in the loess stratum through some combination of human activity, aeolian processes, and bioturbation. In any case, the locus does retain considerable integrity. No historic artifacts were recovered from the subplowzone strata, and the prehistoric artifacts were very consistent. The locus most likely represents occupation during a single period of prehistory. Locus 2 was not a separate lithic processing station, but part of a gathering camp; the tools made there were for immediate use in gathering or butchering activities.

Site 7K-C-396 is considered eligible for listing on the National Register of Historic Places under Criterion D. The site can contribute to our knowledge of regional prehistory, particularly in the areas of subsistence, chronology, and lithic and ceramic technology (Custer 1986, 1994). Because of the preservation of two unplowed artifact concentrations, both probably representing single periods of prehistory, the site's artifacts can be analyzed as the remains of particular prehistoric groups. These occupations can probably be closely dated through a combination of artifact analysis and C-14 dating. The artifacts themselves, residues present on them, and organic

## VIII. CONCLUSIONS AND RECOMMENDATIONS

### A. Site 7K-C-394

Site 7K-C-394 is a farm complex occupied from approximately 1850 to recent times. The excavation area included the location of a house shown on maps and photographs of the site made between 1906 and 1981. Approximately 6,000 artifacts were recovered from the excavations on the site, most of them architectural fragments and nineteenth- or twentieth-century domestic items. The site has been plowed since the abandonment of the farm, and most (93%) of the artifacts were recovered from the plowzone. No foundations or other structural remains were discovered during the excavations. A number of postholes were uncovered and excavated, probably all from fences. A few eighteenth-century artifacts were recovered, but not enough to indicate occupation of the site in the pre-1850 period.

Site 7K-C-394 is not considered eligible for listing on the National Register of Historic Places. Although the site once belonged to the important Ridgely family, they never occupied it, and the connection is too tangential to support consideration of National Register eligibility under Criterion B. The site is not eligible under Criterion D because it lacks sufficient integrity to convey important information about the past. The site has been plowed, and the structures were demolished using heavy equipment in a way that further rearranged the archaeological remains. The main deposits of architectural material are not in the locations of the known buildings, suggesting that they were moved by heavy equipment. The thick rubble deposits along the tree line, identified in Test Units 24 and 25, are further evidence of bulldozing. Because the artifacts have been disturbed by plowing and demolition, the spatial patterning of the finds has no cultural meaning. No privies, trash pits, or other artifact-rich features that might have provided analytical units were discovered.

Since the artifacts from the site cannot be associated with any particular occupation period, household, or activity area of the farm, they provide very little information for answering the kinds of research questions proposed in state management plans (De Cunzo and Catts 1990; De Cunzo and Garcia 1992:267-297). Many of the questions proposed in the management documents, and of much interest to historical archaeologists, pertain to individual households, and the dispersed artifacts from the Laws Farm are useless in these contexts (LeeDecker and Friedlander 1985; LeeDecker et al. 1987). Furthermore, since some of the different households that occupied the farm were tenants and some were owners, and since the value of the farm fluctuated over time, making some of the families richer and some of them poorer, the artifacts cannot provide information on the lifeways of any particular social group (Spencer-Wood 1987).

Site 7K-C-394 is not eligible for listing on the National Register of Historic Places, and no further work is recommended.

material from the buried A-horizon in Locus 2 can provide information on food-gathering activities in this environment. The lithic artifacts from Locus 2 represent a good record of an industry based on producing small scrapers and flake tools from local cobbles. The ceramics from Locus 1 can provide information on the ceramic vessels used in a particular context, a procurement station, and thus on the functions of the vessels. Because Site 7K-C-396 is not threatened by the proposed wetland replacement, the site should be preserved in place for future archaeological research.

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## APPENDIX A

### Glossary

<b>Albany Slip</b>	Dark brown slip found on the interior of jugs, crocks, or pans of American manufacture. First made in Albany, New York, in the early nineteenth century.
<b>Argillite</b>	A type of stone used by prehistoric peoples to make tools. Argillite is a soft, grayish stone, so easily eroded that tools and flakes are often rounded and difficult to recognize. Found in the uplands of Pennsylvania and Virginia, Argillite is a form of metamorphosed siltstone. Similar to hornfels.
<b>Artifact</b>	An object made or shaped by people.
<b>Biface</b>	A piece of flaked stone which has been worked on both faces. Stone tools were manufactured by a process of reduction, in which fragments were removed from the original piece of rough stone, according to a regular pattern, until the desired form was achieved. Flakes were removed from the stone by striking (percussion) or pressure. Bifaces can be divided into <b>early stage</b> , <b>middle stage</b> , and <b>late stage</b> , depending on how much they have been shaped. Early-stage bifaces are still very rough, while late-stage bifaces are close to being finished tools.
<b>Bipolar</b>	A method of stoneworking in which the stone to be worked is set on one stone (the anvil) and struck with another stone (the hammer).
<b>Ceramics</b>	Clay that has been shaped and hardened in a fire; pottery.
<b>Chert</b>	A type of stone, similar to flint, often used by prehistoric peoples for making stone tools. Chert is brown, black, or gray, very smooth, and breaks in smooth, curved planes. Chemically, chert is cryptocrystalline quartz.
<b>Cordmarked</b>	Prehistoric ceramics that have been shaped with a paddle wrapped in cord, leaving the surface covered with tightly spaced parallel grooves.
<b>Core</b>	A piece of stone that serves as a nucleus or parent from which flakes are removed. The core may be further shaped into a biface, or the flakes may be used as tools or raw material for making tools. Two types of cores were found at Site 7K-C-396, bipolar cores and freehand cores. A <b>bipolar core</b> is one that has been cracked between two other stones using the bipolar technique. Bipolar cores are typically rectangular and have a heavily battered appearance. They are also usually small, because the bipolar technique is most useful on small cobbles.

The flakes detached were usually small and not suitable for shaping into bifaces. A **freehand core** is a block or cobble that has had several flakes detached from it by holding it in one hand and striking it with a hammerstone or other tool held in the other hand. Freehand cores come in various sizes; large cores could be used to obtain large flakes that could be shaped into biface and projectile points.

<b>Cortex</b>	The outer, weathered surface of a stone, different in color and texture from the interior. Waterworn cobbles have a distinctive cortex that can easily be identified. The presence of cortex on a stone artifact usually indicates that it was in the early stages of manufacture, since all the cortex would be removed from the finished product.
<b>Cut Nail</b>	Nail cut from sheet iron, similar to modern brick nails. First produced ca. 1790, it gradually replaced the hand-wrought nail.
<b>Diagnostic</b>	A diagnostic artifact is one that is of a distinctive type made in only one period of prehistory and can therefore be used to date sites on which it is found. For example, Townsend ceramics were made only in the period AD 1000 to 1600, 300 to 900 years ago. Since pieces of Townsend ceramics were found on Site 7K-C-396, we know it was occupied in that period.
<b>Distal</b>	The portion of a flake furthest from the striking platform, or, the tip of a biface.
<b>Debitage</b>	Waste stone from the manufacture of tools, including flakes and shatter. Debitage is the most common artifact on most prehistoric sites in Delaware, because a large amount of debitage was produced in the course of making a single finished tool.
<b>Dorsal</b>	The side of a flake that was on the outside of the stone being struck.
<b>Expedient Tool</b>	An expedient tool was a piece of stone used as a tool without elaborate shaping. A flake of stone is usually very sharp and can be used for cutting or scraping without further modification. One part of Site 7K-C-396 was used for the manufacture of expedient tools from cobbles.
<b>Fire-Cracked Rock</b>	Stone which has been exposed to fire, causing pieces of the cortex to break off. Some stones, such as quartz and quartzite, often turn red when heated.
<b>Flake</b>	A form of waste stone from tool manufacture (debitage) with specific features such as a striking platform or bulb of percussion. Flakes are usually thin and

have smooth, gently curved sides. Although many flakes were waste, some were used as expedient tools, and some large flakes were shaped into tools. Flakes can be divided into categories based on the way they were created in the manufacturing process.

**Decortication Flakes** were made during the removal of cortex from the stone; at least 50% of one surface of the flake is cortex.

**Early Reduction Flakes** were made during the early stages of biface reduction or detached from cores; they have fewer than four dorsal flake scars, irregularly shaped platforms with minimal lipping, and less than 50% cortex on their outer (dorsal) surfaces.

**Biface Reduction Flakes** were made during the middle and late stages of biface reduction and during tool resharpening. They have multiple, overlapping flakescars on their dorsal surfaces, oval platforms with multiple facets. Platforms are distinctive because they represent tiny slivers of what was one the edge of a biface.

**Flake Fragments** are pieces of flakes that are too incomplete to assign to a type.

<b>Flake Scar</b>	The place from which a flake was removed from a piece of stone, usually a smooth and shallow concavity.
<b>Free-Blown</b>	A bottle blown without a mold.
<b>Haft</b>	Wooden handle or shaft of a stone tool.
<b>Hafting Element</b>	The end of projectile point or other tool that was modified for attachment to the haft.
<b>Ironstone</b>	Very hard refined earthenware, first produced in about 1800 but not common in North America until after 1840. Sometimes called "Stone China" or "White Granite."
<b>Lithic</b>	Relating to or made of stone.
<b>Machine-Made</b>	Glass blown by a glass-blowing machine, like almost all contemporary bottle and jar glass. The first such machine was introduced in 1889, the first fully automatic version in 1903.
<b>Mold-Blown</b>	A bottle that has been blown inside a mold, so that blowing air into the bubble in the glass forces the glass to press out against the mold, acquiring the shape of the mold. An ancient technique, it became very common in the 1820 to 1920 period, when it was used to provide standardized bottles for mass-produced

consumer goods. These bottles often bore the name or symbol of the product they held.

<b>Porcelain</b>	Glassy ceramic, fired at very high temperatures, translucent in strong light. Chinese porcelain is found on sites from the seventeenth and early eighteenth centuries, but European porcelain was not produced until the mid-eighteenth century.
<b>Projectile Point</b>	A relatively thin, symmetrical stone tool, pointed at one end, with the other end modified for hafting. These tools were used as spearheads, arrowheads, or knives. Some shapes of projectile points are distinctively shaped and were made during only one period of prehistory or by one people, and they can be used to date archaeological sites.
<b>Proximal</b>	The end of a biface furthest from the tip, where it was attached to the <u>haft</u> .
<b>Quartz</b>	A type of stone used by prehistoric peoples to make tools. Quartz is a very hard, clear or white stone, very common throughout the world.
<b>Quartzite</b>	A type of stone used by prehistoric peoples to make tools. Quartzite is metamorphosed sandstone, and the sand particles are still visible, making the stone very grainy. Quartzite is very hard, clear, pink, brown, or gray and usually sparkly.
<b>Redware</b>	Red-bodied earthenware.
<b>Refined Earthenware</b>	Type of historic ceramic with a soft, absorbent body fired between 1400-1900 F. Refined earthenwares include <b>creamware</b> , <b>pearlware</b> , <b>whiteware</b> , and <b>ironstone</b> , and are commonly used as tablewares or teawares.
<b>Rhyolite</b>	A type of stone used by prehistoric peoples to make tools. Rhyolite is a hard, light stone, yellow, gray or blue in color, found in the mountains of Pennsylvania and Maryland.
<b>Rockingham/ Bennington</b>	Buff-bodied refined earthenware with a mottled yellow and brown glaze. The two varieties are very similar, and the names refer to the place of manufacture, Rockingham for English vessels and Bennington for American (it was first made in this country in Bennington, Vermont). Manufactured from the late eighteenth century in England, and from the 1840s in the United States, into the twentieth century.

<b>Scraper</b>	A finished tool with one sharpened edge but no point. Scrapers include <b>endscrapers</b> , which have the sharp edge opposite the hafting element, and <b>sidescrapers</b> , which resemble knives. Scrapers are so called because they resemble tools used by historic peoples for scraping hides.
<b>Shatter</b>	A piece of waste stone (debitage) not possessing flake attributes such as a bulb of percussion or a striking platform.
<b>Slip</b>	Mixture of clay and water used in decorating ceramics, very smooth in appearance.
<b>Stoneware</b>	A very hard historic ceramic fired at 2100-2400 F.
<b>Striking Platform</b>	A flat surface at one end of a flake on which it was struck to detach it from the parent stone.
<b>Surface Treatment</b>	The way the outside of a ceramic vessel was handled. Some vessels were smoothed and left plain, while some were decorated with carvings. In Delaware it was common to shape ceramics with a paddle wrapped in cord (string), producing a distinctive ridged appearance; this is called <b>cordmarking</b> .
<b>Temper</b>	Material added to clay to make it easier to work and less prone to shrinking during firing. Common tempers include crushed shell, sand, and crushed rock.
<b>Uniface</b>	A flaked stone tool that has been worked on only one surface.
<b>Utilized Flake</b>	Flake that has traces of use damage or polish on at least one edge, showing that it was used as a tool.
<b>Whiteware</b>	Hard-bodied refined earthenware that evolved from pearlware. The paste, or body, was made harder and whiter, and the amount of cobalt in the glaze was reduced, making the finished product less blue. Whiteware was introduced around 1820 and is still being produced today.
<b>Wire Nail</b>	Steel nail with a round shaft, like a modern carpentry nail. Invented in the 1860s but not common until the 1890s.
<b>Yellowware</b>	Yellow-bodied refined earthenware with a clear glaze, producing a dull yellow surface. First produced in the late 1820s; manufactured into the 1920s.

## APPENDIX B

### John Ham Inventory, 1798

#### Introduction

When John Ham, owner of the Laws Farm, died, an inventory was made of his possessions. This was a standard practice in England, the English colonies, and the early United States, and thousands of inventories survive. These documents are an important source of information about everyday life in Colonial and early National times. They record many items that rarely survive in the ground to be excavated by archaeologists, such as clothing, wooden furniture, and bed linens. The monetary values are also very interesting, since they show that some objects of great importance to archaeologists, especially ceramics, were not highly valued by the people who used them. The inventory for John Ham is particularly detailed, recording items such as barrels, pails, and leather that many recorders would have lumped together as "lumber." (In this period the word "lumber" meant simply "junk.") The great detail with which the livestock were inventoried, down to the color in some cases, shows how important they were, and how precise a vocabulary for describing them these farmers possessed. The large amount of stored food on hand, including 50 bushels of corn, 1,342 pounds of bacon, and a barrel of vinegar, reminds us how much refrigeration has changed our lives.

John Ham was a very wealthy man, as this inventory shows. The larger part of his wealth was invested in items intended to produce more wealth, including large numbers of livestock, large quantities of tools, and eleven slaves. An adult slave was valued at 30 to 50 pounds, three to five times as much as a mule and twice as much as a good horse, so they were very valuable indeed. John Ham's slaves made up a third of the total value of his estate. Ham also purchased luxury goods. His furnishings were particularly impressive, including many pieces of mahogany and walnut. He had two precious watches, one gold and one silver, and a set of silver spoons. He owned enough books to need two bookcases, including a large Bible worth 3 pounds, as well as a carriage for summer travel and a new sleigh for the winter. He owned all the equipment necessary for partaking in the new rituals of tea and coffee, which were an essential part of the eighteenth century "culture of respectability" (Walsh 1992)—a tea kettle, a tea table, a coffee mill, and a coffee pot—and he kept a store of coffee and sugar on hand.

The values in the inventory are English pounds (£), shillings (s) and pence (d), which most Americans preferred to the new and untried U.S. dollar. In the English system twelve pence made one shilling, and twenty shillings made one pound.

**An Inventory of the Goods and Chattels of John Ham Dec'd. Appraised by us the  
Subscribers this Eleventh Day of June One Thousand Seven Hundred & Ninety Eight.**

		£	s	d
Wearing Apparel		10	10	0
5 No Horn'd Cows & 4 Calves	@ 90/-	22	10	0
5 Horn's Cows & Calves	90/-	22	10	0
1 Stear & Heifer	40/-	4	0	0
1 Black Cow		4	0	0
5 Heifers	45/-	11	5	0
5 Do. & Stear	45/-	13	10	0
1 Small Heifer & Stear	30/-	3	0	0
3 Cows	90/-	13	10	0
1 No Horn'd Stear & Horned Red Do.	90/-	9	0	0
1 Yoke of Oxen		15	0	0
2 Small Heifers	30/-	3	9	0
1 Yoke of Oxen		13	10	0
1 Yoke of Ditto		12	0	0
1 Brindle Bull		3	15	0
5 Cows	80/-	20	0	0
2 Black Stears	80/-	8	0	0
1 Three Years old Heifer & 1 Two Year old Ditto	45/-	4	10	0
1 Brindle Yearling		1	10	0
6 Milch Cows	80/-	24	0	0
7 Ditto & Calves	100/-	35	0	0
1 Bay Mare & Yearling Mule		7	10	0
4 Mules	£10	40	0	0
1 Grey Mare		12	10	0
1 Two Year old Bay Colt		15	0	0
1 Small Sorrel Mare		22	10	0
1 Large Black Mare		15	0	0
1 Large Bay Ditto		1	0	0
1 Ditto Ditto		22	10	0
1 Young Colt		7	10	0
50 Head of Sheep large & small	10/-	25	0	0
1 Black Sow & 4 pigs		1	15	0
1 Spotted Sow & 4 pigs		2	0	0
26 Head of Hogs beside the above		19	10	0
35 Head of Geese & Goslings		1	6	0
1 Dutch Fan		3	0	0
3 Hogsheads & 3 Barrels		1	5	0

1 pair of old Cart Wheels & Body	1	5	0
3 Hogsheads & 7 Barrels	0	15	0
1 Barrel & Some Shad	0	15	0
1 Ditto & Red Paint	0	15	0
1 Soap Cask 10/- & 3 old Kegs 3/-	0	13	0
1 Barrel & a little Salt	0	7	6
1 Hogshead half full of Vinegar	1	15	0
2 Hogsheads 15/- & 1 Barrel 7/6	1	2	6
1 Barrel of Soap	1	10	0
1 Barrel & Keg	0	10	0
50 Bushels Corn @ 3/-	7	10	0
1 Carriage	22	10	0
1 New Sleigh	3	0	0
1 Plow & Geers	2	5	0
1 Ox Cart & Yoke	8	0	0
1 large Harrow	1	10	0
1 old Plough	1	0	0
2 Grubbing Hoes	0	12	6
5 Hoes	0	12	6
1 Spade, Axes, Scythe & Briar Hook	1	0	0
Geers & Chain	0	13	6
1 Pair of Wedges & Ox Chain Ditto	1	1	0
3 Dutch Ovens	1	2	6
3 old pots & Griddle 10/- Big pot & hooks 15/-	1	5	0
2 Pots & hooks 12/6 - Skillet Tea Kettle & Sauce pan 11/3	1	3	9
a Lot of Old Petwer & Earthen ware 3/-	0	15	0
2 Frying pans 7/6 - old warming pan & Brass Kettle 30/-	1	17	6
4 Pails & 2 Tubs 15/- 2 old tables & 2 chests 15/-	1	10	0
1 Big wheel 7/6 - 4 pottracks 30/- & 2 saws 33/7	3	11	3
1 Small Ditto 5s Andirons & Tongs 25/- old cupboard 5/-	1	15	0
2 Saddles 60/- old pail & mortar 7/6 - old Bedstead 2/6	3	10	0
2 odd chairs 3/- flesh fork 2/6 5 sicles & Chisel 7/-	0	12	6
1 Bridle 7/6 old Plough & 2 Swingletrees 10/- & 3 Plough Bridles 3/-	1	0	6
1342# Bacon 1342/- & 80# of Beef 80/-	71	2	0
1 Share & 2 Colters & Screws	2	5	0
1 Bed Bedstead & Furniture with window Curtains	10	0	0
2 Beds Bedsteads & Furniture	11	0	0
1 Coffee Mill 7/6 Small Book Case 10/-	0	17	6
1 Small red Table 2/6 - 2 cases 15/- & 2 Trunks 22/6	2	0	0
Leather 18/9 Candles 20/- Coffe & Sugar 23/9	3	2	6
1 Demijohn 7/6 Sundries in the Store Room 7/6	0	15	0

15 Yds Cloth @2/6 Basket & Hatchet 2/6	4	5	0
7 Old Chairs 7/6 Cradle 7/6	0	14	6
Sundry old Books 18/9 Spools Thread @ 52/6	3	11	3
Desk and Book Case 200/- & Books in do. 50/-	12	10	0
2 Guns 25/- Small Table & Basket & small Chair 7/6	1	12	6
6 Mahogany Chairs	4	10	0
6 Windsor Chairs 45/- & Couch 45/-	4	10	0
1 Tea Table 25/- Dressing do. 30/- Beaureau 50/-	5	5	0
2 Tables 45/- Case of Drawers 100/-	7	5	0
Andirons Shovel & Tongs 30/- Chain Galss & delph ware 25/-	6	2	6
Looking Glass 60/- Razor Case & Razors 7/6			
1 Bedstead & furniture	9	0	0
1 Stout Walnut Table 52/6 & Mahogany do. 15/-	3	7	6
1 Pine Table 7/6 & Walnut Drawers 45/-	2	12	6
3 Arm Chairs 20/- & 8 Old Chairs 30/-	2	10	0
3 waiters 25/- Hand & Flat Irons 22/6	2	7	6
Plates 8/6 Bowl 5/- Tumblers Coffee pot & bowl 8/-	1	1	6
1 Jug 2/6 Coffe pot 2/6 - 3 Candlesticks 7/6 dish 2/6 funnels 2/-	0	17	0
Sundries 4s Knives & forks 20/-	1	4	0
1 Jug of Lard 40/- Milk pans and pots 15/- and Sole leather 7/6	3	2	6
Flour & Barrel 40/- Rye do. & 2 Bbls 40/-	4	0	0
3 Kegs 11/3 Salt, Barrel & Keg 8/3	0	19	6
Lots of Lumber & 48 1/2# Sole Leather	1	4	4
Steelyards 11/3 Codfish 3/- & Pr. Traces 2/4	0	16	7
1 Couch, Table, Reel & Chest	0	10	0
1 Negro Child Mariah, Hannah's daughter	*	7	6
60# of wool @ 2/0	6	0	0
298 feet of Plank 13/0 hnd.	1	18	9
Sugar Tongs, Spoons & China Mug	1	10	0
1 Silver Watch	8	5	0
1 Negro Man Jacob to Serve One Year	12	10	0
1 Negro Woman Betty	40	0	0

Amount Carried Forward	£ 787	3	10
John Ham's Legacy			
Clock 22L 10s & Pint Silver Can 10L	32	10	0
Silver Spoons 5L & Soup Ladle 3L	8	0	0
Negro Tom	50	0	0
Sulkey 10L & Large Bible 3L	13	0	0
Gold Watch	11	5	0
1 Young Horse (Shark)	15	0	0
	£ 129	15	0
Margaret Stout's Legacy			
Negro Betty 40L & Negro Jim 40L	80	0	0
Ann Ham's Legacy			
Negro Hannah for Ten Years	30	0	0
Negro Jean	30	0	0
	£ 60	0	0
Charles Ham's Legacy			
Negro Caleb	50	0	0
Susan Ham's Legacy			
Negro Violet 30L & Mary 30L	60	0	0
Alexander Ham's Legacy			
Negro Prince	20	0	0
Benjamin Ham's Legacy			
Negro Enos	18	15	0
	£ 1205	13s	10 d

Andrew Naudain  
William Harper